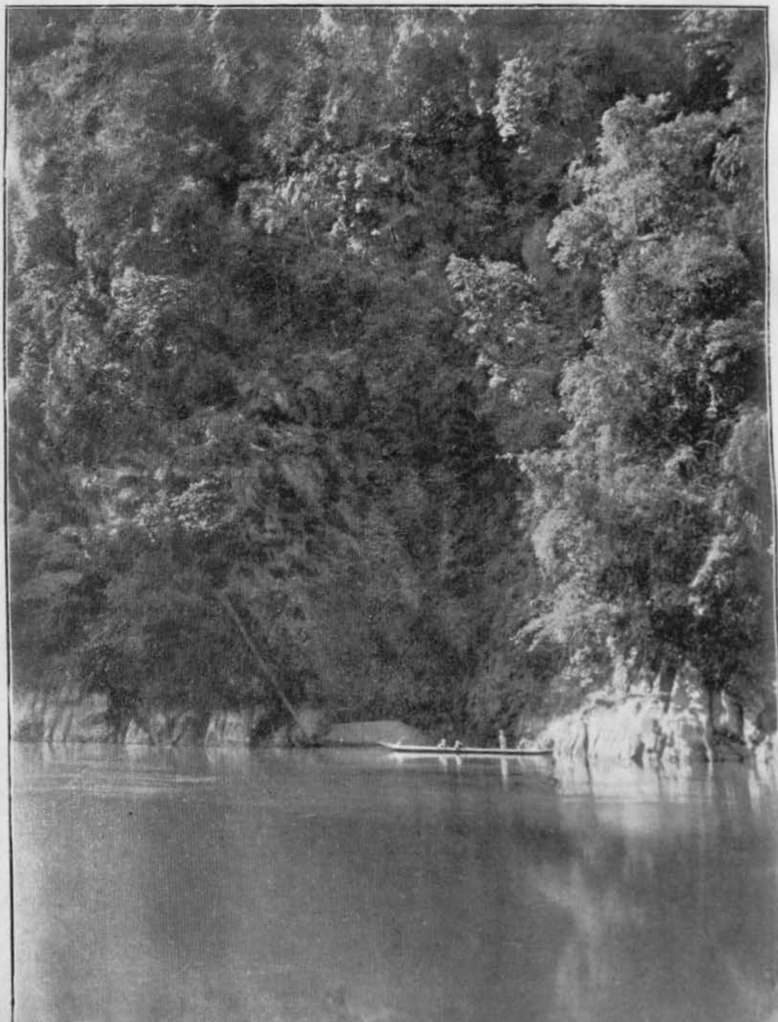


IN THE GORGE OF THE SUBANSIRI.

ASSAM DISTRICT GAZETTEERS.

VOLUME VIII

LAKHIMPUR

BY

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PREFACE.

To those unacquainted with Assam it may perhaps seem strange that no directory should be attached to the Gazetteer of Lakhimpur. There is, however, only one town, Dibrugarh, within the district, and Dibrugarh has been described at length. One green village is very like another green village, and none possess such distinctive characteristics as would justify a separate and detailed description. Reference has, however, been made to all villages, which are noted either as trade centres of importance or as the seats of some particular industry. My acknowledgments are due to Major Cole, Deputy Commissioner of the district, who has been so good as to examine the Gazetteer in proof.

B. C. ALLEN.

SHILLONG, *June 16th, 1905.*

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Area and Boundaries.

The district of Lakhimpur is bounded on the north by the Himalayas, on the west by the Himalayas and Darrang, on the south by Sibsagar and by hills inhabited by independent Nagas, and on the east by hilly country, inhabited by savage tribes. On three sides it marches with territory that is not in the occupation of any civilized or even semi-civilized power, and the frontier has accordingly never been definitely defined An Inner Line has been laid down under the provisions of Regulation V of 1873, which serves to mark the administrative boundary of the district. But, though for a short distance this line runs along the north bank of the Brahmaputra, the foot of the hills has always been accepted as the limit of British territory; and on the eastern and southern frontiers our officers are in the habit of getting their orders carried out, without having to resort to force, for some considerable distance beyond the Inner Line. The district as defined by the Inner Line is situated between 26°, 49′ and 27°, 52′ N., and 93°, 46′ and 96°, 05′ E., and covers an area of 4,529

square miles. Measured on a more liberal scale it lies between 26°, 50′ and 28°, 17′ N., and 93°, 46′ and 97°, 15′ E., and covers an area of 10,327 square miles.

General Aspects. Lakhimpur consists of a broad plain lying on either side of the Brahmaputra, bounded on three sides by hills To the south these hills are only a few thousand feet above the level of the sea, and their sides are for the most part clothed in dense tropical forest. They lie in tumbled ridges, sharply serrated at the summit, and sloping steeply to the valleys with which they are intersected, and each of the main ridges is buttressed with spurs thrown out on either side. The hills that shut in the eastern end of the valley are considerably higher, and, on a clear day, the view to the north and east is bounded by a continuous chain of snowy peaks, which, if low in comparison with the giants of the Himalaya, attain at any rate the altitude of Mont Blanc. Along the north the nearer ranges are generally high enough to conceal the eternal snows beyond. North of North Lakhimpur, there are points in this chain which are nearly 10,000 feet above the level of the sea, but a little to the east of the Subansiri the level falls, and the outer hills are not more than two or three thousand feet in height. This, however, is not for far, and the level quickly rises to six or seven thousand feet near the gorge of the Dihang.

South of the Brahmaputra the plain is fairly high, and a broad belt of country along the foot of the hills is clothed in dense evergreen forest. Creepers spread in every direction over the larger trees, knitting them

into one great mass of foliage, and drop down here and there in graceful coils and loops. The forest is dense with bamboos, plantains, palms, and huge tree ferns; and the creeping cane, its sharp spikes hidden by its beautiful green leaves, acts as an effectual check on any one who lightly tries to penetrate these sylvan fastnesses. In the centre of the district much of the forest has been felled, and the plain is covered with fields of waving rice, or with stiff tea bushes ranged in rows with mathematical precision, and pruned down with equal accuracy to the same level. The planter's bungalow, the factory, and the cooly lines stand out above these even rows of shrubs; and it must be admitted that except for the patches of forest kept as a fuel reserve, and the avenues of trees which are often planted along the roads of the estate, there is little of the picturesque or beautiful in these plantations. The drainage of the country is carried off in small streams and *jans* which feed the larger rivers, and there are comparatively few swamps and *bhils* even in the neighbourhood of the Brahmaputra.

The north bank.

North of that great river the condition of affairs is somewhat different. A large portion of the country is still covered with tree forest, the level of the land is lower, and there are more *bhils* and marshes; while much of the country is exposed to inundation in the rainy season, and is covered with dense masses of grass and reeds, ranging from ten to twenty feet in height. The general effect is extremely picturesque. In the foreground are to be seen fields of waving rice, of a

vivid green during the summer season, but changing to a rich gold as harvest time draws near. Round the edges of these rice *pathars* are groves of slender palms, broad-leaved plantains, and feathery bamboos, which conceal the cottages of the cultivators, while further back is often to be seen the dark green line of the primeval forest. The view is bounded to the north by the bluest of blue hills, whose sides are for the most part clothed with trees, though here and there are patches of white rock, where the cliff is too precipitous to afford a lodging for a plant or sapling, even in that rainy climate. In the far distance to the east there are ranges of high hills, whose peaks are covered with snow, and whose rocky sides are flecked with gleaming white. At all seasons of the year the country looks fresh, and cool, and green. The trees in the forest never lose their leaves, while the roads are often carpeted with grass, and bordered with ferns that recall the lanes of Devonshire.

Between Dibrugarh and Sadiya, the country north of the Brahmaputra is clothed with forest right to the foot of the hills, and is almost entirely destitute of inhabitants. Sadiya itself is a country of rivers, forest, and jungle, with patches of high ground covered with short springy turf. The road to Bomjur, our furthest outpost on the north, runs for the greater part of the way through a magnificent forest of gigantic trees. On one side there are glimpses of the great Dibang, here gliding gently along over some deep stretch of water, and anon rushing hurriedly down a

rapid, and foaming and roaring round some rock or sunken tree. On the other side can be seen the rugged mass of Sadiya peak, its grey sides flecked with snow, while in front, the blue hills rise in tumbled masses from the valley, their sides covered with a dense growth of trees.

Mountain system.

Although Lakhimpur is surrounded on three sides by mountains, almost the whole of the area included within the Inner Line consists of a flat and level plain. An out-lying spur of the Naga Hills stretches from the Disang river through the south of the Jaipur and Tipling mauzas, and the Inner Line near Margherita has recently been thrown back to the Tirap, so as to include a few of the lower ranges of the Naga Hills. But apart from these mountains and a few isolated hills in the Makum and Buri Dihing mauzas, there is nothing to break the even level of the plain.

River system. The Brahmaputra: its identity with the Sangpo.

The principal river of Lakhimpur, as of every other district of the Assam Valley, is the Brahmaputra, but in this district it possesses a peculiar interest from the fact that it is here that it passes out of the regions of geography, and its true course becomes to some extent a matter of uncertainty. Hindu tradition describes the river as rising in the sacred pool of Brahmakund, some three or four days' journey east of Sadiya; but tradition can hardly be accepted by the geographer as scientific fact. The river that flows from the east has been followed far beyond the Brahmakund to the Rima Valley, where it is known as the Zayul Chu, and it is now generally believed that this river is only a

tributary of the mighty Brahmaputra, and not the main channel of its waters. The Brahmaputra is supposed to be identical with the Sangpo of Thibet, which rises in 31° 30′ N. and 82° E., near the upper waters of the Indus and the Sutlej, a little to the east of the Manasarowar lakes. It has been traced almost continuously for a distance of 850 miles eastwards to Gya-la-Sindong, which is barely 150 miles from the Assam Frontier, but no explorer has yet succeeded in following the river right down to its junction with the Brahmaputra. It was at one time thought that the Sangpo might be identical with the Irawadi, but explorations which terminated in 1882, showed that the Sangpo could not flow east of Sama. It was then suggested that the river which flows past Sama was not identical with the stream that runs eastward from Sadiya to the Brahmakund, but was a tributary of the Sangpo, which flowed to the west of Sama into the plains of Burma. This theory was completely disproved by the explorations of Mr. Needham, who, in 1885-86, marched from Sadiya up the so-called Brahmaputra to Rima, a village east of Sama, and proved that the river at Rima, and the river that flowed past Sadiya are the same.

The Sangpo being denied an outlet towards Burma in any direction, the weight of evidence would suggest that it is identical with the Brahmaputra. Granted this premise, it seems probable that the channel by which it makes its way through the Himalayas is the Dihang, which is the largest river that falls into the Brahmaputra from the north, and at the point

of junction considerably exceeds in volume the river to which the Assamese have erroneously applied that name. In 1886-87 the Sangpo was visited by a native explorer, who stated that he followed its course nearly 100 miles south of Gya-la-Sindong, to a place called Onlet, which is only 8 miles from Miri Padam and 43 miles from the Assam Frontier; but it has not been found possible to check or confirm his report in any way.

The banks of the Brahmaputra are, as a rule, higher in Lakhimpur than in the districts lower down the valley, and in places they are covered with tree forest. Between the main banks there is a wide strath, in which the river oscillates from side to side, throwing out here and there divergent channels which after a time rejoin the parent stream. The waters of the river are heavily laden with suspended matter, and the smallest obstruction in the current is liable to give rise to an almond shaped sand bank. The next flood may wash this bank away or may only increase its size by fresh deposits of sand, and *churs* or islands of this nature, which have held their ground for a few seasons, soon become covered with a dense growth of reeds.

The tributaries of the Brahmaputra.

The principal rivers which fall into the Brahmaputra in Lakhimpur are, from the north bank, the Digaru, Diphu, and Kundil, which fall into it east of Sadiya, the Dibang, the Sesseri, the Dihang, the Subansiri, the Ranganadi, and the Dikrang. On the south bank it receives the Noa Dihing, the Dibru and the Buri Dihing. The Digaru, Diphu, and Kundil are of little

inportance in the economy of the district. The Kundil flows past Sadiya, but the greater part of its course lies outside the Inner Line, and the same can be said of the whole of the Digaru, and almost all the Diphu. The Dibang, with its tributary the Dikrang, the Sesseri, and the Dihang can be described in general terms. They debouch upon the plain through gorges of great natural beauty, the current is swift, the bed of the river full of snags and boulders, and the scenery through which they make their way extremely picturesque. There is, however, hardly any portion of these rivers which lies within the Inner Line, and the want of population in their neighbourhood in the plains, and the savage character of the tribesmen in the hills, render them of no account as routes for traffic.

The Subansiri. The Subansiri is believed to rise far up amongst the mountains of Thibet, and enters the plains of North Lakhimpur through a gorge of singular beauty. On either side, the hills rise from the river, their sides being for the most part clad in dense tropical forest, the trees thrusting their roots into every crevice in the rocks, though here and there sheer cliffs rise straight from the still dark water. Creepers bind the trees together with a soft green veil, and slender palms, giant tree ferns, and broad-leafed plantains are to be seen on every side. The rocks near the water's edge are covered with moss and ferns, and nature seems to have been determined to produce a masterpiece of river, hill, and forest scenery. In places the river comes roaring down in rapids, which can only be shot by the most expert of boat-men ;

in places it stretches out in reaches of still green water whose smooth unruffled surface is fifty or sixty feet above the bottom. It enters the plains near Dolongmukh and flows a southerly and westerly course till it joins the Luhit near Garamur, and finally falls into the Brahmaputra opposite Dhansirimukh. Like other rivers that flow from the Himalayas, the banks are alternately sheer and sloping as the current sets from side to side; and on one hand there will be a steep wall of sandy soil some eight or ten feet high, while on the other there is a gently sloping beach stretching some hundreds of yards towards the higher levels. Before falling into the Brahmaputra, the Subansiri collects nearly all the drainage of the North Lakhimpur sub-division, the principal tributaries on the left bank being the Sampara, and the Koran. The Koran has two considerable tributaries, the Dhol, and the Charikaria or Sisi, which flows past Dhakuakhana, and though it joins the Koran is also connected by another channel with the Kherkutia Suti. On the right bank there is the Ghagar with its various tributaries, the Kadam, and several minor streams.

The Rangapani and Dikrang.

The Rangapani rises in the Dafla Hills and enters the plains near the Joyhing tea estate. From there it flows a southerly course till it falls into the Luhit to the west of Garamur, after receiving a large number of minor streams all of them flowing in a southerly and easterly direction from the hills. The Dikrang is also a considerable river which flows from the hills into the Luhit.

The Buri Dihing.

South of the Brahmaputra the most important river is the Buri Dihing, which rises in the Patkai range, and flows a tortuous course with a generally westerly direction till it falls into the Brahmaputra, after a course of about 150 miles. Its principal tributaries are—on the right bank the Digboi, the Tipling, the Tingrai, and the Sesa; and on the left bank the Tirap and the Namsang. After leaving the hills, it flows along the southern border of the district past the important settlement at Margherita. It then winds its way through an outlying spur of the Assam range, passes Jaipur, the site of an old cantonment, Nahorkhutiya, where it is crossed by the Assam-Bengal Railway, and Khowang; and during the last part of its course forms the boundary between the Lakhimpur and Sibsagar districts. Below Jaipur the floods of the river do some damage, and steps are now being taken to repair an embankment which was constructed in the time of the Ahom Rajas. The spill water is, however, said to have a fertilizing effect, where the flood is not deep enough to injure the crop. Even as far from its mouth as Margherita, the Dihing is about 200 yards in width. The bed is sandy and in places obstructed with snags, and it is not very largely used for purposes of navigation.

The Noa Dihing and Dibru.

The Noa Dihing rises in the Singpho Hills and pursues a westerly and then a northerly course till it falls into the Brahmaputra east of Sadiya. Through the greater part of its course it flows through jungle land, and, as in the higher reaches the current is very strong, it is of little importance in the interior economy of the district. It is connected with the Buri Dihing, and its principal

tributaries are, on the left bank the Dirak, and on the right the Tengapani. The country between the Dibru-Sadiya Railway and the Brahmaputra is drained by the Dibru, but though it has given its name to the capital of the district, it is not a stream of very much importance. It rises in the Buri Dihing mauza, and receives in the course of its journey towards the Brahmaputra, a large number of petty *jans* and streams, the most important of which are the Dum Duma and the Dangori.

Lakes and Marshes.

South of the river the level of the country is fairly high, and in the settled tracts there are not many *bhils* or marshes of importance. North of the Brahmaputra there is a heavy local rainfall to be carried off, and the rivers are liable to be swollen by the drainage of the hills through which they make their way into the district. Much of the country also lies comparatively low, and the water tends to collect in the lower levels and basins. Some of these *bhils* are extremely picturesque. In the centre lies the actual sheet of water, surrounded as a rule by a stretch of the richest pasture in which the cattle can graze knee-deep in the cold weather, while the whole is enclosed by a wall of elephant grass and reeds. The surface of the lake is dotted over with islets and clumps of flowering grasses, and in the cold weather is visited by flocks of duck and other aquatic birds. To the north the view is bounded by the hills, while in the near distance there is the dark green line of forest or bamboo groves. The most important *bhils* south of the Brahmaputra are the Garukhuti *bhil* in Jamira mauza, the Chaparu and

Kawamari *bhils* in Larua, and the Romai *bhil* in Madarkhat. North of the river there is the great Kani *bhil* in the Sisi mauza, the Pabhamari and Bangalmari *bhils* in Dhemaji, the Bhimpara *bhil* in Kadam, and various other smaller sheets of water.

Geology.. The district consists of a wide alluvial plain composed of a mixture of sand and clay in varying proportions, and surrounded on three sides by hills belonging to the tertiary period. The mountains on the north lie beyond the frontier and have never been properly explored, but are believed to be composed of great thicknesses of soft massive sandstones, of tertiary age and fresh water origin. Practically nothing is known of the Mishmi Hills at the eastern end of the valley, beyond the fact that they contain limestone. The hills to the south consist of sandstones and shales, probably of Nummulitic age, interspersed with valuable coal measures and ironstones * The geological deposits of economic value are gold, coal, petroleum oil, limestone, kaolin, and salt. The extent to which they have hitherto been worked and the possibilities of their further exploitation are discussed in a later chapter.

Climate. There is no district in the Assam Valley, and probably few in the plains of India, in which the climate is more endurable than it is in Lakhimpur. In October the rains stop, and the temperature begins to fall, the average maximum for that month being

* Further information with regard to the Geology of Upper Assam will be found in a paper by J. Malcolm Maclaren, Esq., B. Sc., F. G. S., Published in the Records of the Geological Survey of India, volume xxxi, part 4, 1904.

only 84·6 degrees Fahrenheit. During the four succeeding months the climate is delightful; the total rainfall during this period at Dibrugarh only just exceeds six inches, the sky is clear, the sun though bright has little power, and the air is cool and pleasant. Fogs sometimes hang over the country in the neighbourhood of the Brahmaputra, but, by diminishing the period during which the earth is exposed to the influence of the sun's rays, they help to keep the country cool, and so are not an unmitigated evil. In January, the average maximum is less than 71 degrees, the average minimum less than 49, and December and February are very little warmer. In March and April, copious showers prevent the temperature from rising, and in the former month the average minimum is only 60° and in the latter less than 65°, while the average maximum is under 80°, though in April at Dhubri it is nearly 89°. From June to September is the only really unpleasant portion of the year. During these four months, nearly 72 inches of rain fall at the headquarter's station, the air becomes saturated with moisture, and though, in comparison with other parts of India, the thermometer keeps fairly low, the damp heat is trying alike to Europeans and to natives. There are, however, few districts in the plains of India in which there is so small a portion of the year to which exception can be taken on climatic grounds; and the difference between the eastern ends of the Brahmaputra and the Surma Valley, can be judged from the fact that the average annual maximum at Dibrugarh is

5 degrees less than it is at Silchar. Further details with regard to the temperature in Dibrugarh will be found in Table I.

Rainfall.

As in other parts of the Assam Valley, the rainfall is much heavier near the Himalayas than it is in the centre of the district. At Pathalipam it is 168 inches in the year, and at the subdivisonal station of North Lakhimpur it is 128 inches. At Dibrugarh it drops to 114 inches, and anywhere between Sadiya and Margherita it is only about 100 inches. Further details with regard to the average rainfall will be found in Table II.

Storms and Earthquakes.

Lakhimpur is seldom visited by violent and destructive storms, though an interval of dry weather in the rainy season is often closed by a thunder shower, which at once relieves the oppressiveness of the atmosphere. Hailstorms sometimes do damage, especially to tea gardens, but are very local in their sphere of action. The rivers occasionally overflow their banks, but the area liable to inundation is generally well known, and is accordingly avoided by the cultivator, and the crops do not often suffer serious injury. Shocks of earthquake are felt from time to time, but there is no record of serious damage ever being done, and even the great earthquake of 1897 left this district practically unscathed.

Fauna.

Wild animals are numerous, and include elephants, rhinoceros, bison (*bos gaurus*), buffalo, tigers, leopards, bears, wild pig, and different kinds of deer of which the principal varieties are the sámbar (*cervus unicolor*),

the barasingha or swamp deer (*cervus duvaucelii*), the hog deer (*cervus porcinus*), and the barking deer (*cervulus muntjac*). Elephants are fairly common, especially near the hills, and when the crops are ripening do much damage unless the numbers of the herds are regularly kept down. For this purpose the district is divided into seventeen mahals or tracts. The right to hunt in each mahal is sold by auction, and the lessee is required to pay a royalty of Rs. 100 on every animal captured. The method usually employed is that known as *mela shikar*. Mahouts, mounted on staunch and well-trained elephants, pursue the herd which generally takes to flight. The chase is of a most arduous and exciting character. The great animals go crashing through the thickest jungle and over rough and treacherous ground at a surprising pace, and the hunter is liable to be torn by the beautiful but thorny cane brake, or, were he not very agile, to be swept from his seat by the boughs of an over hanging tree. After a time, the younger animals begin to flag and lag behind, and it is then that the opportunity of the pursuer comes. Two hunters single out a likely beast, drive their elephants one on either side, and deftly throw a noose over its neck. The two ends of the noose are firmly fastened to the *kunkis*, as the hunting elephants are called, and as they close in on either side, the captured animal is unable to escape, or to do much injury to his captors, who are generally considerably larger than their victim. The wild elephant is then brought back to camp where it is tied up for a time and gradually tamed.

Small kheddahs too are occasionally erected, and the animals gradually driven into them, but this system of elephant hunting is too well known to require description. Fifty-seven animals were caught in 1902-03, the last year in which the mahals were sold by the Deputy Commissioner. Rhinoceros are now becoming scarce, but are occasionally met with in the swampy ground in the wilder portions of the district. They breed slowly, and, as the horn is worth more than its weight in silver, and the flesh is prized as food, they present a tempting mark to the native hunter. The two-horned variety of rhinoceros is said to be found in the desolate hills which lie between Assam and the Khamti Valley, but has not been shot by any European.

Herds of wild buffaloes are found north of the Brahmaputra, and wild bulls often serve the tame cows that are kept by the Nepalese. Bison are generally found near the hills and in the neighbourhood of tree forest; tigers, leopards, and bears are met with in the wilder parts of the district. A curious animal called the takin (*budorcas taxicolor*) is found in the Mishmi hills, but, though its horns are not unfrequently brought down to Sadiya, no European has as yet succeeded in shooting it. According to Blandford, it is a heavily made animal much larger than a serow, with a big head, thick horns, and stout limbs. The length from snout to vent is six and a half feet, and the height at shoulder three and a half feet. It appears to be allied to both goats and antelopes. Wild animals cause little loss of human life, but in 1903, are said to have accounted for nearly two

thousand heads of cattle. The number of human beings killed in that year, by different animals was as follows :—elephants 3, tigers 3, bear 1, wild buffalo 1, total 8. Rewards were at the same time paid for the destruction of 34 tigers, 13 leopards, and 15 bears. Small game include wild geese and duck, snipe, florican (*sypheotis bengalensis*), black and marsh partridge, pheasants, and hares.

CHAPTER II.

HISTORY—NATIVE RULE.

Early traces of Hinduism in Lakhimpur—The Chutiyas—Their Conquest by the Ahoms—Rise of the Ahoms—Koch and Muhammadan Invasions—Rudra Singh in 1700 A.D., rules the whole of Assam Proper—The Moamaria Insurrection—The Burmese Invasion—Occupation by British in 1825—Manners and Customs of Ahoms—The Paik System—The fighting qualities of the Ahoms—Arbitrary Government and Savage Punishments—Social Life—Attitude towards Hinduism—The position of Women—Condition of Country in 1824.

Early legends.

The earliest legends suggest that Hindu princes were reigning in Lakhimpur some centuries before the Christian era. Local tradition assigns to Bhismaka the construction of a fort whose ruins are to be seen between the gorges of the Dikrang and Dibang rivers. The walls of this fort were made of hewn granite, surmounted by a breast-work of loop-holed brick, and were evidently constructed by persons possessed of considerable engineering skill; but there is nothing to connect them with Bhismaka or the heroic age of the Mahabharata. The white scar of a landslip on the hills is said to be the remains of a wedding feast, which Bhismaka was giving to celebrate the union of his daughter Rukmini with Sisupal, when the bride was carried off by Krishna; but little or no

reliance can be placed upon these legends, and, according to the ordinary Pauranic accounts, Bhismaka's kingdom was situated in Berar. At the same time it must be admitted that there are good reasons for supposing that centuries ago Lakhimpur formed part of the territory of a civilized prince, who was overthrown by the Chutiyas, a tribe who are still found in large numbers at the eastern end of the Assam Valley.

The Chutiyas.

Of the early history of the Chutiyas not much is known, but they are believed to be members of the great Bodo race, and to have entered the plains from the north-east. Colonel Dalton, quoting from an ancient chronicle, which is confirmed by local tradition, states that the Chutiyas were originally settled in the hills near the Subansiri river. The tribe lived in large independent villages, like the Abors and Miris of the present day. In course of time, one Bibar seems to have attained a certain measure of supremacy over the neighbouring villages, and the process begun by the father was carried on still further by the son. He extended his influence over the wild tribes, assumed the title of Lord of the Hills, and, at the head of his followers, descended into the valley of the Brahmaputra. He there defeated a king called Bhadra Sen, and founded a capital called Ratnapur, which is said to have been situated in the Majuli or in the North Lakhimpur subdivision. Gaur was at that time still under the rule of a Hindu dynasty, so the irruption of the Chutiyas must have taken place prior to its conquest by the Muhammadans in 1204 A.D. The Chutiya leader assumed the name of Ratnadwaj

Pal, contracted an alliance with a neighbouring Raja called Naipal, and generally consolidated his power. He excavated tanks, built temples, and constructed a line of forts along the frontier. He then asked the king of Kamateswar * to bestow a daughter in marriage upon his son, and on that prince rejecting the proposed alliance with scorn, constructed a road to his territories protected by forts erected at intervals along the line of march, and so alarmed the Kamateswar Raja that his daughter was handed over without delay. Ratnadwaj visited the king of Gaur, and left a son to be educated at his Court. The boy died and his body was despatched to his father, who received it when he was building a new city, called in memory of this event Sadiya (the place where the corpse was given).

Ratnadwaj was succeeded by five kings, each of whom bore the name of Pal. The last of the series, Karmadwaj, had one daughter for whose hand there were so many suitors, that the king, with a Jephthah like fatuity, decided to submit the selection of his son-in-law to the arbitrament of fate. A flying squirrel was seen hovering over Sadiya, and the hand of the princess was promised to the man who could bring it down with an arrow. A poor young Chutiya was successful, and much to her disgust the proud princess was united to her lowly spouse. The old king then resigned in favour

* Presumably Kamatapur in Kuch Behar, which is said to have been founded by Niladwaj, whose grandson Nilambar was conquered by the Muhammadans at the end of the 15th century. This date would be too late for the invasion of the Chutiyas and the expedition against Kamatapur is probably quite mythical.

of his son-in-law, who assumed the name of Nitipal. * Naturally enough he was utterly unfitted for the high position to which he had so suddenly and undeservedly been raised, and the kingdom was soon reduced to a state of anarchy and confusion. The Ahoms seized this opportunity to push home their attacks, and the power of the Chutiyas was broken once for all. Little reliance can, however, be placed upon these legends. The story of the poor Chutiya boy who marries the princess is probably a poetical description of the descent of the tribe into the valley, and of the subjugation of the Hindu dynasty reigning in Lakhimpur. The date of the downfall of the Chutiya kingdom, according to the Chutiya Buranji, is moreover, 150 years later than that assigned to this event in the Ahom chronicles, which state that it took place in 1523 A D.†

The Ahom account of the Chutiyas

The Ahom historians say that when they entered Assam in 1228 A.D., the Chutiyas were established at Sadiya, and were masters of the country as far west as the Disang river. Hostilities broke out between the two powers towards the middle of the fourteenth century. In 1376 A.D. the Chutiyas declared that they were ready to make peace, invited the Ahom king to a regatta on the Safrai river, and put him to death, as soon as they had got him into their power. The two

* According to another version the king left an infant son, for whom Nitipal acted as regent.

† Mr. H. J. Kellner in a manuscript note in the Nowgong office says, that it must have occurred before 1503 A D. The General who conquered the Chutiyas was Phuchunmung Bor-gohain who was killed in a great battle between the Ahoms and Kacharis at Kaliabar in 1503.

tribes continued to live in a state of intermittent conflict, but at the beginning of the sixteenth century the struggle began to assume an acute form. The Chutiyas at first met with a considerable measure of success. They pitched their camp at Dikhomukh, raided the territory of the Ahoms, and were, at any rate, not worsted in the engagements that ensued. Another account represents the Chutiyas as extremely stupid. They mistook scarecrows sent down the river on rafts for the enemy, and, when preparing a night attack by water, they were so drunk that they forgot to unmoor their boats. On waking the next morning they were so puzzled to find themselves still in the same place, that they at once retreated without attempting to engage the enemy.

In 1523 the Chutiya king began to treat for peace, but declined to accept the Ahom terms, which involved the surrender of ancestral heirlooms in the shape of a gold umbrella and bracelets. The attack was accordingly resumed, and the Chutiya king retreated with his army to the hill Chantan or Chandangiri. The Ahoms in their pursuit experienced the difficulties which at the present day confront our own troops in their transfrontier expeditions. The soldiers at first retreated but they were rallied by their officers; and, in the engagements that ensued, the Chutiya king and his son were killed. Their heads were conveyed to the Ahom prince Suhunmong, more generally known as the Dihingia Raja, and placed by him at the foot of the stairs leading to the house of their principal God at Cherideo. The administration of Sadiya

was then entrusted to an Ahom noble, and the leading Chutiya families deported to places lower down the valley. But the tribe again rebelled, it was only with difficulty that this fresh revolt was stamped out, and as late as 1572 A.D., an expedition was sent against an insubordinate Chutiya chief.

From 1523, A.D., till the final expulsion of the Burmese by the British in 1825, Lakhimpur, in name at any rate, formed part of the territory of the Ahom kings, and some account must now be given of the origin of this people and of their gradual expansion into an important power.* The Ahoms were a Shan tribe from the kingdom of Pong in the upper valley of the Irawadi, who, at the beginning of the thirteenth century, crossed the Patkai, and settled in the south of the territory which has since been formed into the districts of Sibsagar and Lakhimpur. The country at the foot of the hills was occupied by tribes of Morans and Borahis whom they easily subdued, and who were absorbed by intermarriage with their conquerors. To the west and north, however, they were confronted by far more powerful nations. Upper Assam was ruled by the Chutiyas, and on the west, there was the strong Kachari kingdom, with its capital at Dimapur, which included the western part of what is now the Sibsagar district, and a considerable portion of Nowgong. The conquest of the Chutiyas by the Dihingia Raja has already been

The Ahoms.

* The description of the manners and customs of the Ahoms has been taken from old Ahom Buranjis or Chronicles, translations of which will be found in the office of the Superintendent of Ethnography.

described, but he did not rest content with his successes in the east, and in 1536 he sacked Dimapur, killed the Kachari king, and compelled his successor to remove his capital to Maibang, on the northern slopes of the North Cachar Hills.

Koch and Muhammadan invasions.

The Ahoms were now supreme in Upper Assam, and it is evident that the eastern portion of Darrang was included in their territory, as in 1523 a large number of Chutiya families were deported to a place a little to the east of the Bhareli river, which bears the name Sootea or Chutiya to the present day. They were still, however, exposed to danger from the Koch and Muhammadan powers in the west. In 1532 they defeated, with great slaughter, a Muhammadan invader named Turbuk on the banks of the Bhareli river; but a few years later they were conquered by the Koch king, Nar Narayan, who occupied their capital Gargaon, the modern Nazira, and exacted tribute from the Ahom prince.

At the beginning of the seventeenth century they were again involved in war with the Muhammadans, as their king Pratap Singh declined to surrender Bali Narayan, the Koch prince. This monarch had fled to the Ahoms for protection, and sagaciously pointed out that in their own interests it was most desirable to maintain a buffer state between themselves and the great power that confronted them on the west. Most of the fighting took place in Lower Assam; but in 1615 A.D., a Musalman army under Satrajit advanced as far as the Bhareli, to avenge a Muhammadan trader, who had been put to death by the Ahom king. The Muhammadans, though at first

successful, were subsequently defeated both on land and water with great slaughter. The Ahoms are said to have crossed the Bhareli by a bridge, and to have turned the flank of their opponents. The bulk of the invaders were killed, and the few prisoners who were taken were subsequently put to death by the Ahom generals, much to the indignation of their ruler, who degraded his officers for this cold blooded murder.

The war then dragged on in Lower Assam, but, in 1637 A. D. on the death of Bali Narayan, the Bar Nadi, which at present forms the western boundary of Darrang, was fixed as the frontier between Muhammadan and Ahom territory. In 1658, the Ahoms took advantage of the confusion that ensued, when Shah Jahan fell sick, to extend their arms to the Sankosh; but three years later they were driven back by Mir Jumla the Nawab of Dacca, who occupied Gargaon, and there concluded a treaty with the Ahom Raja Chutumla, otherwise known as Jaiadwaj Singh. The stars in their courses fought, however, on the Ahom side. The rains set in with a severity exceptional even in that rainy land, the country was converted into a swamp, and disease made havoc of the Muhammadans crowded together in their waterlogged camp. A large number of men were lost in the retreat down the valley, and by 1667, the Ahoms had again established themselves at Gauhati. A few years later, this town was retaken by the Muhammadans, but it was captured again by the Ahoms during the reign of Gadadhar Singh (1681-1695), and, from that time onward, Goalpara

remained the frontier outpost of the Muhammadan dominions.

Rudra Singh 1695-1714 A. D.

The zenith of the Ahom power was reached in the reign of Rudra Singh, who founded a new capital at Rangpur, and waged successful war against the Rajas of Cachar and Jaintia. Two large forces marched the one through the North Cachar Hills, the other through the Jaintia Hills to Jaintiapur, and the general in command succeeded in arresting the Jaintia Raja, and deporting him to the Assam Valley. The Ahoms were, however, unable to impose their yoke upon the free and savage highlanders, who rose as one man and butchered the garrisons which had been left in a chain of forts across the Jaintia Hills. Rudra Singh was the first of the Ahom kings to publicly become the disciple of a Hindu priest, and, after his death, the power of the Ahom kingdom began steadily to decline.

Sib Singh. 1714-1744, A. D.

His son Sib Singh was a weak prince, much under the influence of his wives, whose name has come down to posterity as excavator of the great tank near which the present station of Sibsagar (Sib's tank) stands. Both he and his two successors were ardent Saktists, and erected numerous temples, and made liberal grants of land and *paiks*, for the maintenance of their special form of Hinduism.

Pramatta Singh, 1744-1751.

Rajeswar Singh, 1751-1769.

The reign of his successor Pramatta Singh was uneventful, and, during the incumbency of the next prince Rajeswar Singh, the signs of the decay of the Ahom power became all too clear. The Raja of

Manipur was driven from his home and applied to the Ahom king for aid. Orders were issued for the despatch of an expedition, but the nobles, to whom the command was entrusted, excused themselves on various grounds and declined the proferred honour. The army lost its way when endeavouring to cross the Patkai, a large number of men perished, and, though ultimately the Manipur Raja succeeded in regaining his dominions, it does not appear that the assistance of the Ahoms materially contributed towards his success.

Lakshmi Singh. 1769-1780. The Moamaria Insurrection.

Lakshmi Singh's reign was signalized by the outbreak of the Moamaria insurrection. The causes of this insurrection are not quite clear. According to the chroniclers, a certain Hathidharia Chungi with one Nahor Kachari came to offer their annual tribute of elephants to the king. The elephant which they tendered to the Borbarua was a lean and sorry animal, and, as an expression of his disapproval, he cut off their hair and noses, flogged them, and drove them away. Boiling with indignation at this outrage, Nahor proceeded to the house of a Hari woman, whose daughter he espoused, and from whom he received a set of metal plates, covered with mystical incantations to confound the enemy. He then applied to the Moamaria gosain for help, which was readily afforded him, and the standard of revolt was raised. This is the account given by the Ahom Chroniclers, and it differs to some extent from the story as told by the Moamaria gosain at the present day. According to this authority, the leaders of the rebellion were two Moamarias named

Nahor Khora and Ragho Neogay, who, after they had been punished for failing to deliver the elephants required, went for assistance to their gosain. The gosain himself declined to listen to their proposals, but they succeeded in winning over his son Gagini Bardekha, who gave them a weapon consecrated with the magic plates of the Kalpataru. The Kalpataru was a sacred book which Anirudha is said to have obtained from Sankar Deb, though the Ahom chroniclers contemptuously assert that it was the property of a sweeper woman.

Success and subsequent defeat of Moamarias.

From the very first the rebels carried all before them. The royal armies were defeated under circumstances which suggest that men and officers alike were guilty of gross incompetence and cowardice; and Lakshmi Singh was driven from his capital and captured. The insurgents then proceeded to appoint Ramakanta, the son of Nahor Khora, to be their Raja. Marauding parties harried the country on every side, and the misery of the common people was extreme. A report at last gained ground that orders had been issued for the execution of all the former officers of state, and this incited the adherents of the king to make one final effort. The signal for the attack is said to have been given by one of the wives of Lakshmi Singh. Ragho, who was one of the most influential men amongst the Moamarias, had forcibly taken her to wife, and, as he was bending down at the *bihu*, to offer his largess to a dancing boy, she cut him down with a sword. On the death of their leader, the rebel forces were surprised and scattered, and a pitiless vengeance taken that spared neither age

nor sex.* The house of the moamaria Mahunt was surrounded, and almost the whole of his family was killed before his eyes, while all the officers appointed by the Moamarias were seized and beaten to death. The wives of the rebel prince were treated with savage cruelty. One of them was flogged to death, while two others had their ears and noses cut off and their eyes put out.

Gaurinath Singh. 1780-1794.

Moamarias again victorious.

In 1780, Lakshmi Singh died, and was succeeded by his son Gaurinath, in whose reign the Moamaria insurrection broke out anew, and with increased violence. At first, the king's troops met with some measure of success, and orders were issued outlawing the rebels and authorising any person to kill any Moamaria he might meet, regardless of time, place, sex, or age. Such orders seem to have been only too well adapted to the temper of the people, and, according to the Ahom chronicler, "the villagers thereupon massacred the Moamarias with their wives and children without mercy." The rebels in their turn were not slow to make reprisals; they plundered the country on every side, and "the burning villages appeared like a wall of fire." The ordinary operations of agriculture were suspended, no harvests could be raised, and famine killed those whom the sword had spared. "The price of a katha of rice rose to one gold mohur, and men starved in crowds under the trees forsaking their wives and children." The highest Hindu castes are said to have eaten the flesh of cows, and dogs and jackals were devoured by the common people.

* The Moamarias say that 790,000 members of their sect were killed, which is no doubt an oriental exaggeration.

In 1786, the rebels under Bharat Singh inflicted a decisive defeat upon the royal troops, and took Rangpur, the capital, by storm. The king fled to Gauhati, and in his terror even left his wives behind him. His generals remained behind in Upper Assam and carried on the contest with varying success. Troops were despatched to their assistance from Manipur, but most of them were ambushed and cut up, and the survivors had no heart to carry on the struggle. The desolation of the country is thus described by the Ahom chronicler. "The Mataks harried the temples and the idols of the gods, and put to death all the sons and daughters of our people. For a great length of time our countrymen had no home, some took shelter in Bengal, some in Burma, some in the Dafla Hills, and others in the fort of the Bura Gohain, who was fighting with the Mataks for years and months together." Bharat Singh ruled at Rangpur for upwards of six years and coins are extant which bear his name; but in 1792 a small British force was sent to the assistance of the Ahom king under the command of Captain Welsh. Gauhati, which had been captured by a mob of Doms under a Bairagi, was re-taken, Krishna Narayan, the rebellious Raja of Mangaldai was subdued, and in March 1794 Rangpur was re-occupied after a decisive victory over the insurgents. Captain Welsh was then recalled, but the Ahom king was able to keep his enemies in check by the help of sepoys trained on the English system.

Kamaleswar Singh, 1794-1809, A. D.

A few months after the departure of Captain Welsh, Gaurinath died and was succeeded by his son Kamaleswar Singh. The country was still in a state of great

disorder. The Daflas, not content with harrying the villages on the north bank, crossed the Brahmaputra and attacked the royal troops near Silghat, but were repulsed with considerable loss. Even Europeans were not safe, and a Mr. Raush, a merchant of Goalpara, who had extended his business operations to Darrang, was robbed and murdered by "naked Bengalis." These freebooters then occupied North Gauhati, but when they attempted to make good their position on the south bank, they were defeated with heavy loss by the royal troops near Pandughat. The Daflas again harried the Darrang district, and even enlisted Bengali sepoys in their service, but were ultimately conquered and dispersed. Victories were also obtained over the Moamarias and the Khamtis at the eastern end of the valley.

Final collapse of the Ahom Kingdom.

In 1809, Kamaleswar Singh was succeeded by his brother Chandra Kanta Singh. The Bor Phukan or viceroy of Gauhati incurred the suspicion of the Bura Gohain or prime minister and fled to Calcutta and thence to Burma. At the beginning of 1816, a Burmese army crossed the Patkai and re-instated the Bor Phukan; but shortly after their withdrawal Chandra Kanta was deposed, and Purandar Singh appointed in his stead. The banished monarch appealed to the Burmese, who, in 1818, returned with a large force and replaced him on the throne.

* This Mr. Raush, was the first European to interfere in the affairs of Assam. He sent 700 burkandazes to Gaurinath's assistance, but they were cut up to a man. A mass of masonry the size of a small cottage covers the remains of Mr. Raush's infant children at Goalpara.

They soon, however, made it clear that they intended to retain their hold upon Assam, and in 1820 Chandra Kanta fled to Goalpara, and from British territory began a series of abortive attempts to recover his lost kingdom. The Burmese were guilty of gross atrocities during their occupation of the country, the villages were plundered and burnt, and the people were compelled to seek shelter in the jungle. Women who fell into their hands were violated with every circumstance of brutality, and the misery of the unfortunate Assamese was extreme. Fortunately for them, causes of quarrel had by this time arisen between the British and the Burmese. In 1824, war was declared by the British Government, and a force was sent up the valley of the Brahmaputra which occupied Rangpur in January 1825, and compelled the Burmese to retire to their own territories; while in the following year, by the treaty of Yandaboo, Assam was ceded to the East India Company.

Ahom Administration. The paik system.

The above is but a brief account of the rise and fall of the Ahoms, but their history is more intimately connected with the Sibsagar district. It now remains to consider what is known of their social institutions, and the conditions under which those subject to them passed their lives.

The most striking feature in the economy of the Ahom state, and one which, (to judge from their conduct since they came under our rule) must have been extremely repugnant to the people, was the system of enforced compulsory labour. The lower orders were divided up into groups of three or four called *ghots* each

individual being styled a *powa paik*. Over every twenty *ghots* was placed an officer called *bara*, over every five *baras* a *saikia*, and over every ten *saikias* a *hazarika*. In theory one *paik* from each *ghot* was always employed on duty with the state, and while so engaged, was supported by the other members. The Raja and his ministers had thus at their disposal a vast army of labourers to whom they paid no wages, and for whose maintenance they did not even have to make provision. It was this system which enabled the Ahom Rajas to construct the enormous tanks and great embankments, which remain to excite the envy of a generation, which has been compelled to import from other parts of India almost all the labour required for the development of the Province and its industries. Many of the works constructed were of undoubted utility, but many, on the other hand, were chiefly intended for the glorification of their designers. Few objects are more worthy of the attention of an enlightened government than the supply of wholesome drinking water to the peopl. But the huge reservoirs, constructed by the Ahom kings, were out of all proportion to the population which could by any possibility have made use of them, while the close proximity in which these enormous tanks are placed is ample evidence that practical utility was not the object of their construction. On the other hand, embankments which were thrown up along the sides of some of the rivers near the capital, protected land which has become unculturable since they have fallen into dis-repair. The duty of providing the various

articles required for the use of the king and the nobility was assigned to different groups, which were gradually beginning to assume the form of functional castes. The rapidity with which these groups abandoned their special occupations, as soon as the pressure of necessity was removed, is a clear indication of the reluctance with which they must have undertaken the duties entrusted to them.*

War.

But though the common people seem to have been compelled to supply an unnecessary amount of labour in times of peace, it was when war was declared that their sufferings were most pronounced. Certain clans of *paiks* were called out, and called out, it would seem, in numbers that were in excess of the actual requirements of the case; an error which entails the most disastrous consequences when the campaign is carried on in a country where supplies are scarce and communications difficult.

According to the Ahom chronicler, nearly 40,000 troops were despatched during the reign of Rajeswar Singh to reinstate the Manipuri Raja on the *gaddi*. Their guides, however, failed them, they lost their way in the Naga Hills, and about two-thirds of the soldiers perished, the mortality being chiefly due to famine and

* The system of enforced labour was no doubt unpopular, but it had much to recommend it. It taxed the people in the one commodity of which they had enough and to spare, *i.e.* labour. It also developed them on the industrial side, and the material comfort of the Assamese would possibly have been greater at the present day if they had not all of them been allowed to devote themselves exclusively to agriculture.

disease. The military dispositions even of Rudra Singh, one of their greatest princes, suggest a want of due deliberation in design, and a feebleness and lack of method in execution. In his expeditions against the Kachari and Jaintia Rajas, the Ahoms lost 3,243 persons, and the practical results obtained seem to have been insignificant. The Jaintia Raja is himself ready to accept the Ahom king as his suzerain, but cannot impose his will upon the independent hillmen, who owe him but a nominal allegiance, and who decline to surrender their freedom at the bidding of their king. The Kachari prince sends tribute, but only "a string of pearls, a dugdagi (locket) and a horse;" assuredly a very small return on the quantity of human life and treasure expended. It must at the same time be admitted that the loot obtained on this occasion was not inconsiderable. It included 3 large cannon, 2,373 large and small guns, 12,000 pieces of silver, 143 gold embroidered coats, 63 elephants and 11 Turkey horses, besides other things; and, more valuable perhaps than all, over 2,000 human beings. At the conclusion of this dangerous and troublesome expedition, each *paik* received a gratuity of four annas, *batta* which would hardly satisfy the sepoy of to-day. The descriptions of the campaigns against the Moamarias, given by the Ahom chroniclers, clearly show that the generals were often guilty of incompetence and cowardice, while the rank and file do not seem to have fully realized the dangers that beset a defeated army. Conditions such as these must of necessity have been disastrous to the private soldier.

Muhammadans describe Ahoms as brave soldiers.

The Muhammadan historians of the invasion of Mir Jumla give, however, a more favourable account of the Ahom military dispositions.* Their resources seem to have been considerable, and, in the course of the expedition, the Muhammadans captured 675 guns, one of which threw a ball three "mans" in weight, besides a large number of matchlocks and other field pieces. No less than 1,000 ships were taken, many of which could accommodate three or four score sailors ; and in the naval engagement which took place above Silghat in March 1662 A. D., the Assamese are said to have brought seven or eight hundred ships into action. The Ahoms are described as strongly built, quarrelsome, bloodthirsty and courageous, but at the same time merciless, mean, and treacherous. They were more than equal to the Muhammadans in a foot encounter, but were much afraid of cavalry. This *corps d'élite* did not, however, exceed some 20,000 men, and the ordinary villagers, who were pressed into the service, were ready to fling away their arms and take to flight at the slightest provocation.

Uncertainty and arbitrary character of Government.

Another factor, which cannot but have re-acted unfavourably upon the common people, was the uncertainty of tenure, under which both the ministers and king held office. A perusal of the Ahom chronicles leaves the reader with the impression that the ministers were continually being deprived of their portfolios, and not unfrequently of life itself. Hardly less precarious was

* An interesting account of this invasion will be found in the Journal of the Asiatic Society of Bengal, Volume XLI, Part I, pages 49-100.

the position of the king, and in the short space of 33 years, between 1648 and 1681, no less than two monarchs were deposed, and seven came to a violent end. Good government, as we understand the term, must have been impossible under such conditions, and we may be sure that the people suffered from this constant change of rulers. Buchanan Hamilton, writing at the beginning of the 19th century, states that the administration of justice under Ahom rule was fairly liberal. Important trials were conducted in open court, the opinion of assessors was consulted, the evidence was recorded, and capital punishment was only inflicted under a written warrant from the king. It is true, no doubt, that few persons possessed the power of imposing the death sentence. But they were allowed to inflict punishments which the victim could hardly be expected to survive, and his position was not unlike that of the heretic delivered by the inquisition to the civil arm, with the request that, "blood may not be shed."

Instances of this.

Abundant evidence is available in the Ahom chronicles to show the arbitrary way in which the royal authority was exercised. The following instances are quoted from the reign of Pratap Singh, 1611-1649, A. D. A Kataki, or envoy charged with diplomatic relations with foreign powers, asked the Muhammadan commander on his frontier to supply him with two jars. His conduct was reported to the king, who immediately ordered him to be put to death. Another Kataki reported that he had heard from a down-country man that a Muhammadan force was advancing up the valley. The

king enquired of the Kataki, responsible for watching the movements of the enemy, whether this information was correct. This man declared that he was unable to obtain any confirmation of the rumour, whereupon the first Kataki was executed for presuming to meddle in matters with which he had no concern; a proceeding which seems to have been hardly calculated to ensure the supply of timely and accurate information. Three merchants then endeavoured to establish friendly relations between the Nawab of Dacca and the Ahom king. The latter prince took umbrage at such unwarrantable interference in affairs of state, and ordered the merchants to be put to death. It subsequently appeared that the facts had not been correctly represented, and the Bor Phukan and two other men responsible were promptly killed. A few years later, the king transported a large number of persons from the north to the south bank of the Brahmaputra, warning them that any one who attempted to revisit his former home would suffer the penalty of death with all his family "even to the child in the womb." Five hundred men attempted to return, as they wished, the chronicler informs us, to rear a brood of silkworms. The king had them arrested, and 300 were put to death, the remainder escaping in the darkness of the night.

Savage punishments: an official blinded for not dismounting before his official superior.

The following incident that occurred in the reign of Lakshmi Singh (1769-1780) is typical of the uncertainties of the time. One Ramnath Bhorali Borua, an officer of state, had the presumption to appear mounted in the presence of his official superior the Borborua. A

complaint was promptly laid before the king, who directed that both Ramnath and his brother should be deprived of sight. The injured man was not, however, destitute of friends, and came with his complaint to the Kalita Phukan, who had his private reasons for desiring the downfall of the Borborua. The Phukan went to the king, poisoned his mind against his minister with the suggestion that a conspiracy was on foot, a suggestion which in those days must always have seemed plausible enough, and, in a short time, the heads of the haughty Borborua, his two uncles, and his brother, were rolling in the dust. It is needless to multiply instances of the savage violence of the times, but the different forms of punishment in vogue call for some remark. Where life was spared, the ears, nose, and hair were cut off, the eyes put out, or the knee pans torn from the legs, the last named penalty generally proving fatal. Persons sentenced to death were hung, impaled, hewn in pieces, crushed between two wooden cylinders like sugarcane in a mill, sawn asunder, burnt alive, fried in oil, or, if the element of indignity was desired, shorn of their hands and feet and placed in holes, which were then utilized as latrines.

In the seventeenth century, it was no uncommon thing to compel conspirators to eat their own flesh, and more than one case is quoted, in which the father was forced to eat the liver of his son, a meal that was usually his last in this world. Punishment too was not restricted to the actual offender, but his wretched wife was liable to be handed over to the embraces of a Hari. Methods

such as these could hardly fail to have a terrifying effect on much more hardened criminals than the Assamese.

Social life amongst the Ahoms.

The Ahoms, even after they became a powerful nation, seem to have adhered to a simple style of life, in which there was little of extravagance or luxury. They have left few masonry memorials of their rule; the Raja's palace is almost invariably referred to as "a planked house," and, according to Buchanan Hamilton, the king alone was allowed to erect an edifice of brick. Shoes might not be worn except by the special license of the king, bedsteads and curtains were only to be found in the houses of the rich, and all but the most important visitors to a noble's house sat on the bare ground. The account given of the Raja's palace at Gargaon by the historian of Mir Jumla's invasion is pitched in a more exalted key. Twelve thousand workmen had been engaged on it's construction for a year, and the audience hall was 120 cubits long by 30 wide. "The ornaments and curiosities with which the whole woodwork of the house was filled defy all description: no where in the whole inhabited world would you find a house equal to it in strength, ornamentation and pictures." The absence of all reference to these wonders in the Ahom histories, suggests, however, that the Muhammadans were anxious to magnify the power and majesty of the prince they had subdued.

The native chroniclers are naturally most concerned with the wars and religious festivals, which bulked so largely in the eyes of the historians of the day, and with the rise and fall of successive families of ministers It

is only incidentally that light is thrown on the social conditions of the people. The kings seem to have indulged in frequent tours about their territories, the itinerary usually followed being Rangpur, Sonarinagar, Tengabari, Dergaon, Jaliarang. Bornagar, Bishnath, and Kaliabar. They were fond of fishing and shooting, and fully appreciated the excitement to be obtained from the hunting of wild elephants. On the occasion of coronations and royal weddings, a week was generally devoted to the festivities, which seem, however, to have consisted for the most part of prolonged feasts, accompanied by much unmelodious music. Towards the end of the eighteenth century, acrobats and jugglers were imported from Bengal, who amused their royal patrons with tricks which are atill shown to the tourist on the P. & O. Kamaleswar Singh visited in state the two principal *sattras* of Auniati and Dakhinpat, and was entertained with all his retinue by the gosains. The chronicler quaintly tells us that the lunch at Dakhinpat gave greater satisfaction then the one at Auniati; but does not say whether this was due to the superior skill of the Dakhinpatia cook, or to the greater beauty of the *sattra* precincts.

Attitude of Ahoms towards Hinduism. Savage persecution of Vaishnavism.

The first Hindus to influence the Ahom kings were saktists, and Pratap Singh (1611-1649) persecuted the Vaishnavites, one of whose leaders had converted his son to Hinduism. The disciples of the gosains were seized, human ordure was placed on their foreheads, and they were degraded to the sweeper caste. To be found in the possession of religious books meant death, not only to the

actual owner, but to every member of his family. Even Pratap Singh's spiritual pastors were not spared, and he denounced the new religion which, in spite of the adherence of the Raja, had not been able to save from death his own beloved son. He then assembled 700 Brahmans, ostensibly to perform a festival, and, as a punishment for their incompetency, degraded them to the status of *paiks*. These persecutions were continued by Gadadhar Singh, who in 1692, plundered the treasure houses of the Vaishnavite gosains, and cast the idols into the water. No respect was shewn even to the sacred head of the Auniati *sattra*, and he was driven from his home to Tejikhat. He fared, however, better than the gosain of Dakhinpat, who had his eyes put out and his nose cut off, while many Hindu priests were put to death. A policy of extermination seems in fact to have been inaugurated, and, according to one chronicler, orders were issued for the destruction of every Hindu child regardless of sex and age. The king had large quantities of pork, beef, and fowls, cooked by men of the Dom caste, and compelled Kewats, Koches, Doms, and Haris to partake of their unholy food.

This policy of oppression was reversed during the reign of Rudra Singh, his son, who was publicly admitted as a disciple of the Auniati gosain; and, from this time forward, the influence of the priests seems to have increased.

The leading gosains persecuted by Moamarias.

During the Moamaria insurrection, the religious orders again fell upon evil times. The rebel king confined the persons of the four principal gosains, and extorted

Rs. 8,000 each from Auniati and Dakhinpat, and Rs. 4,000 each from Garamur and Kamalabari. Religion was degraded by the promulgation of an order that any person could be initiated on payment of a betel nut, and the common people availed themselves in crowds of this indulgence. Subsequently in the reign of Gaurinath Singh, the Moamarias attacked the Garamur *sattra*, burned it to the ground, slew a large number of the disciples, and nearly killed the gosain himself. His successor Kamaleswar Singh (1794-1809) found himself unable to pay the sepoys, whose services were indispensable for the maintenance of some sort of order in the kingdom. Following the example of other monarchs, he called upon the church to supply the funds for the support of the temporal power. Contributions were levied on all the mahunts, and the demands of the soldiers were satisfied.

Laxity of Ahom Hinduism.

But, though converted to Hinduism, the Ahoms found the restrictions of their new religion irksome; and their gosains, with the tact which they display towards their converts of the present day, allowed their new disciples a considerable degree of latitude. Rudra Singh, though he had been publicly admitted to the church by the Auniati gosain, feasted his followers on buffaloes and pigs on the occasion of his father's funeral; while not only buffaloes, but even cows found a place in the menu of his coronation banquet At the time of the first Moamaria insurrection, the rebel chief made overtures to Lakshmi Singh, and offered him, apparently in good faith, a pig for supper. A present such as this, clearly

shows that even towards the end of the 18th century, the Hinduism of the Ahom kings was one of the most liberal variants of that catholic creed. Before taking any decisive step, it was the practice to refer, not only to the Brahmans and Ganaks, but also to the old Ahom priests the Deodhais and Bailongs. These venerable men were required to consult the omens, by studying the way in which a dying fowl crossed it's legs; a system of divination which is in vogue amongst many of the hill tribes of Assam to the present day. The restrictions of caste were evidently somewhat lax, as we hear that the Moamaria mahunt had an intrigue with a Hari woman; while at the beginning of the 19th century the viceroy of Gauhati took a fisher girl for his mistress, a breach of the convenances for which, it should be added, he was deposed.

The position of women. The influence of the Muhammadans in Assam Proper was so slight, that the low view they professed to take of the other sex had little or no effect upon the general population. The Ahoms, like their Burmese ancestors, held their women folk in honour, and even at the present day, the purdah, and all that it implies, is almost unknown in the country inhabited by the Assamese. The Ahom princesses seem to have taken a prominent part on ceremonial occasions, and not unfrequently exercised considerable influence on affairs of state. In the middle of the 17th century, two of the queens almost usurped the reins of government, and, according to the Ahom chronicler, "their words were law." When called to account by the successor of their husband, they

proudly stated that they had been of great service to the king, at a time when he was ignorant of the way in which he should behave, whether when "eating, drinking, sitting, sleeping, or at council." Sib Singh (1714-1744) is said to have abdicated in favour of his queens, hoping thereby to defeat a prophecy which declared that he would be deposed; and coins have been found bearing the names of four of these princesses. The mother of Lakshmi Singh dug a tank, and Gaurinath entrusted to his step mother the control of the Khangia mel, and consulted with his mother about affairs of state. It was not, however, only the princesses of royal blood who concerned themselves with public matters. At the time of the Moamaria insurrection, one Luki Rani was sent against the rebels; and the victory over Turbuk in 1532 is partly ascribed to the courageous action of the widow of the Borgohain, who had been killed in a previous engagement by the Muhammadans. Desperate at the loss of her husband, she put on armour and rode into the ranks of the enemy to avenge his death. No mercy was shewn her and she fell, pierced with spears; but her example emboldened the Ahoms, who at once advanced to the attack and defeated the Musalmans with great slaughter.

Condition of Province at time of cession to the British.

In estimating the effects of British rule, it is necessary to form a clear idea of the state of the Province at the time when it passed into our possession, and first it must be pointed out that the British did not conquer Assam in the sense in which that word is usually employed. The native system of government had completely broken

down, the valley was in the hands of cruel and barbarous foreigners, and it was not as conquerors, but as protectors and avengers that the English came. They were certainly not inspired by any *lust* for land. For some time after the expulsion of the Burmese, the East India Company were doubtful whether they would retain their latest acquisition, and an attempt was made to administer the upper portion of the valley through a descendant of the Ahom kings.

The condition in which we found the country was lamentable in the extreme. For fully fifty years, the Province had been given over to desolation and anarchy. Life, property, honour were no longer safe, and the people in their misery had even abandoned the cultivation of the soil, on which they depended for their very livelihood. Bands of pirates used to raid up the valleys of the Dhansiri and Kakadanga, and return with their boats laden with booty, leaving ruin, death, and desolation in their wake. The hill tribes were no longer kept in order, and the Daflas descended and harried the submontane tracts, and even extended their depredations to the south of the Brahmaputra. The treatment, meted out to the unfortunate villagers, can be judged from the protest made by the hillmen to Rajeswar Singh, shortly before the collapse of the Ahom government, when they begged him "not to pull out the bones from the mouth of dogs." Buchanan Hamilton, writing in 1809 A. D., states thatnorth of the Brahmaputra "there is no form of justice. Each power sends a force which takes as much as possible from the cultivator."

Native testimony on this point.

The memories of this miserable time survived long after it had passed away. In 1853, an Assamese gentleman Srijut Ananda Ram Dhekial Phukan, wrote as follows to Mr. Moffatt Mills. "Our countrymen hailed the day on which British supremacy was proclaimed in the Province of Assam, and entertained sanguine expectations of peace and happiness from the rule of Britain. For several years antecedent to the annexation, the province groaned under the oppression and lawless tyranny of the Burmese; whose barbarous and inhuman policy depopulated the country, and destroyed more than one half of the population, which had already been thinned by intestine commotions and repeated civil wars. We cannot but acknowledge, with feelings of gratitude, that the expectations which the Assamese had formed of the happy and beneficial results of the Government of England, have, in a great measure been fulfilled; and the people of Assam have now acquired a degree of confidence in the safety of their lives and property, which they never had the happiness of feeling for ages past."

Whatever errors have been committed by the British Government, and it is too much to hope that no mistakes of policy have been made during an administration of nearly eighty years, there can be no question that the introduction of a settled form of government has been of the greatest benefit to the immense mass of the people to whom it has been extended.

CHAPTER III.

HISTORY—BRITISH ADMINISTRATION.

Lakhimpur at first administered by native chiefs—The Khamtis at Sadiya—Matak—Purandar Singh's territory—The Singphos—The Mishmis—The Abors—The Miris—The Daflas—The Apatanangs—The Nagas—Lakhimpur Assamese in little more than name—Transfrontier explorations—Rima—Bor Khamti—The Patkai—Archaeology—Chronological table of native rulers.

Lakhimpur not immediately taken under direct administration.

For the first few years after the expulsion of the Burmese, the administration of the remote and jungly tracts, which now constitute the prosperous district of Lakhimpur, was entrusted to the semi-independent chiefs whom we found in possession of the country. Sadiya and the villages in the neighbourhood was left till 1835 to the Khamti chief, who had seized this fief when the Ahom kingdom was tottering to its fall. Matak, or the country south of the Brahmaputra and west of the Buri Dihing, was ruled by the Matak chief or Bor Senapati till 1839; and between 1833 and 1838, the administration of the country north of the river, between Bishnath and Sadiya, was entrusted to Purandar Singh. Some reference must thus be made to these semi-independent principalities before referring to the history of the district under British rule.

Khamti settlements.

The fertile plains of the Brahmaputra Valley have ever drawn towards them the tribesmen living in the

narrow glens and forest covered mountains with which they are surrounded; and, as the power of the Ahom kings began to wane, there was a forward movement of the hill men from the south and east. One of the most civilized of these tribes was the Khamtis, who occupy the rich valley east of the Daphabum which bears their name, and, in 1794, an offshoot from this horde advanced westwards into the valley of the Brahmaputra. They settled for a time on the Tenga-pani, but finding the Ahom Government in no condition to oppose their onward march, they crossed to Sadiya, expelled the local representative of the Raja, and took possession of the neighbouring country.

After the expulsion of the Burmese, the Khamti chief was recognised as the local Governor by Mr. David Scott, the Agent to the Governor-General on the north east frontier. He was allowed to collect poll tax from the villagers, and required, in lieu of tribute or of taxes, to maintain a contingent of 200 men who were armed by the British Government. In 1835, the old chief died, and his son and successor was wanting in a just appreciation of the strength of the suzerain power. A dispute arose between him and the Bor Senapati or ruler of Matak, with regard to some land near Saikhoa south of the Brahmaputra. The British officer attached the territory in dispute, pending his decision in the matter, but his orders were openly disregarded by the Khamti chief, who took forcible possession of the land he claimed. It was impossible to overlook such flagrant insubordination: he was deposed and deported lower

down the river, his post abolished, and Sadiya brought directly under the administration of the Company. A few years later, the ex-chief was rather rashly allowed to return and live amongst his people, and he at once proceeded to engage himself in intrigues against the British Government. In 1839 the plot bore fruit, and on the night of January 19th, a party of 500 Khamtis raided the station, murdered Col. White the political officer, and killed and wounded eighty of his men. But their courage failed them after delivering this attack, and they at once retreated into the Mishmi Hills. The Singphos, Mataks, and Abors all offered their assistance in quelling the revolt. Several expeditions were led into the hills; by December 1843, the last of the insurgents had submitted, and since that time they have never given any trouble.*

Matak

The rule of the Moamarias was entirely founded on the sword, but they undoubtedly succeeded in establishing their independence in a part of Lakhimpur. Coins are still extant which were minted by one of their Rajas Sarbananda; and, on the first arrival of the British, it was considered advisable to recognise the Matak Raja or Bor Senapati as a local chief. His jurisdiction was accordingly confirmed within the following boundaries: west and south the Buri Dihing, north the Brahmaputra, the Dibru river and its tributary the Dangori, and east an imaginary line drawn from a point south of Saikhoa to the Dehing. The territory was known as Matak, possibly because it was orginally inhabited by members

*Vide History of the relations of the Government with the Hill tribes of the North-East Frontier of Bengal. By Mr. (afterwards Sir) Alexander Mackenzie P. 57-60.

of the Matak tribe. According to Wilcox, the Mataks were a distinct tribe whose language bore no affinity to that of their neighbours, who lived on the Hupong plain near the Dihing river, south of the Phungan pass. They said that they had been conquered by the Singphos, that one half of them had been carried into captivity, and that the rest fled to the protection of the Khamtis. In 1826, there were about 500 houses of Mataks in Bor Khamti, but, at the time of Major Macgregor's visit in 1885, they had become merged in the general population.*

It was arranged that the Bor Senapati should furnish a contingent of 300 men, and, though he was to pay no revenue himself, he was to be responsible for the poll tax of any raiyats who might migrate from British territory into his dominions. He was permitted to exercise civil and criminal jurisdiction over petty cases, but cases of murder, decoity, 'great wounding' and theft of sums, exceeding Rs. 50 were to be referred to the Political Agent for disposal. In practice this arrangement proved unsatisfactory. The rates of revenue charged were lower than those prevailing in the neighbouring territory, and there was a constant flow of settlers from the districts entrusted to Purandar Singh. In 1835, the liability to military service was commuted to an annual payment of Rs. 1,800, and in 1839, when the old Senapati died, the terms offered to his son were not sufficiently attractive to induce him to accept them. Matak was accordingly

* Account of Col. Woodthorp's expedition up the Dihing and into Bor Khamti in 1884-85 P. 8.

absorbed into the territories of the Company and administered like the other districts of Assam.

Purandar Singh's territory. Reference has been already made to the hesitation with which the East India Company undertook the administration of Assam; and, in 1833, the experiment was tried of placing the portion of the valley lying between the Dhansiri and the Dihing south of the Brahmaputra, and between Bishnath and Sadiya on the north bank, under Raja Purandar Singh. The Raja was accorded the position of a protected prince, was entrusted with full civil powers, and was required to pay an annual tribute of Rs. 50,000 to Government. It was thought that this arrangement would prove acceptable to the Assamese, but experience showed that, this was not the case. In 1838, Captain Jenkins, Agent to the Governor-General on the North-East Frontier, travelled through the Raja's territories, and was met on every side by complaints and charges against his administration. North of the Brahmaputra, the country was left unprotected, and the people were harried by the Daflas, who carried off their women and children and held them to ransom. Small guards of sepoys were occasionally sent to protect the frontier, but as the villagers were expected to provide them with all that they required, their presence and absence alike were felt to be a grievance. The distasteful system of compulsory labour was still maintained; duties of as much as one anna in the rupee were levied on everything except rice sold in the markets, and the people who remained were required to pay the poll tax of

others who had died or had migrated to the territory directly under our administration.

There can be little doubt that Purandar Singh's administration was unpopular with every section of the community, but the Raja was to some extent hampered by want of funds. Major White estimated that the revenue of his territories amounted to about Rs. 80,000.* Of this, no less than half a lakh was ear-marked as tribute, and the Raja was left with a nominal Rs. 30,000 per annum from which to defray the expenses of his court, to satisfy the demands of the priests, and to carry on the business of the administration. It is hardly matter for surprise that little was spent on public works, that the army was small and inefficient, and that it was impossible to remit taxation. The natural tendency of mankind to cavil at the Government seems to have been over-looked, and too much importance was attached to every murmur of complaint. The Muhammaden settlers in the country professed that they had serious grievances, yet Captain Jenkins was himself constrained to admit that those who came to see him were far better dressed than he expected, and that, judging by externals, many of them were well off. There can, however, be little doubt that the resumption of this territory, in 1838, was an act which met with hearty

* Letter No. 80 dated 6th July 1838 from Capt. Jenkins.

A letter from Purandar Singh's son states that, when his father accepted the Raj, he had no idea what a large proportion Rs 50,000 bore to the total revenues of the country. Col. Cooper he says had made a settlement for Rs 170,000, but neither he nor any of the British officers who succeeded him could collect more than Rs 70,000 or 80,000.

approval from the great majority of the persons affected, and on that account alone it was certainly not to be regretted

The frontier tribes. The Singphos.

Apart from the economic development of the district, the history of Lakhimpur, since it came under British rule, is largely concerned with the misdemeanours of the frontier tribes. In the early days of British rule, the Singphos, like the Khamtis, were a source of trouble on the eastern frontier. In 1825, they made common cause with the Burmese, and Capt. Neufville advanced up the Noa Dihing, destroyed their villages, and released a large number of Assamese whom they had kept as slaves. They occupied a debatable land on the extreme frontier of the district, and, for some time, it was doubtful whether they should or should not be treated as British subjects. Their two principal leaders were the Bisa and the Duffa *gam*, and the rivalry between these chiefs had the effect of keeping the south eastern frontier in a perpetual condition of unrest. In 1830, a raid was made on Sadiya, but was repulsed without much difficulty. Five years later, the Duffa *gam* descended from the Patkai, raided Bisa's village and killed ninety persons, and troops had to be despatched to drive him back into the hills. In 1837, Captain Hannay and Dr. Griffiths proceeded across the Patkai to meet the Burmese representatives, in the hope of being able to arrange with them some definite system for the management of the Duffa *gam*; but the Burmese claims were so unreasonable that it was impossible even to take them into consideration. In 1843, the Singphos

broke out again, and an attack was made on our posts at Ningroo and Bisa. An expedition was sent against the marauders without delay, all resistance was definitely crushed, and since that date the tribe has given practically no trouble. A quasi political murder occurred, however, in 1898. The Buri Dihing mauzadar had reported that the village of Jauhing *gam*, the Bisa Raja, might be assessed to land revenue. The suggestion was accepted by the Deputy Commissioner, and a Doaniya, a class of people whom the Singphos look upon as slaves, was ordered to measure up his land. This Jauhing *gam* resented. A short time afterwards the mauzadar was shot, and suspicion rested on a man of Jauhing's village. Attempts were made to obtain the surrender of the culprit, but he was reported to have escaped, and he has up to date succeeded in evading justice. As a punishment for this outrage, the order for assessment, which up to that time had been allowed to remain in abeyance, was at once enforced, and revenue has since been collected without trouble.

The Mishmis.

The country north of the Khamtis and Singphos is inhabited by the Mishmis, who are divided into three tribes; the Digarus who occupy the hills north of the Brahmaputra and east of Sadiya, the Chulikatta who live on both sides of the Dibang, and the Bebejiya who occupy the valleys of the Ithan and the Ithu, to the north-east of the Chulikatta country. The story of our relations with this tribe, down to 1884-85, will be found in the History of the North-East Frontier of Bengal by Mr. (afterwards Sir) Alexander Mackenzie,

and is briefly summarized below. The first mention of the Mishmis in the records of the Bengal Secretariat dates from 1825, when Lieutenant Burlton reported that the "Mishmah" hills were inhabited by tribes "who were very averse to receive strangers." It seems, however, to have been possible to overcome these inhospitable tendencies, as in 1827, the Digaru Mishmis were visited by Lieutenant Wilcox, and in 1836 Dr. Griffiths entered the Mishmi Hills. Nine years later, Lieutenant Rowlatt penetrated to the Du, and up that river in a northerly direction to the village of Tuppang, where he met the Thibetans.

Murder of M. Krick.

In 1851, M. Krick, a French missionary passed through the Mishmi Hills to the upper valley of the Luhit or Brahmaputra, and returned again without encountering any opposition. Three years later, he paid a second visit to the hills; but on this occasion hew as not so fortunate and was murdered by a Mishmi chief named Kaiesha. It was not for long, however, that the murderer was allowed to go unpunished. Lieutenant Eden, at the head of sixty men, advanced eight marches into the hills, surprised and captured the offending village, and carried off Kaiesha to be solemnly hanged at Dibrugarh.

Further outrages: then peace for 20 years.

In spite of this demonstration of our power to punish those who offended us even in the midst of their mountain fastnesses, the Chulikatta showed no inclination to respect our frontier. In 1855, they had the effront ry to carry off three servants belonging to Lieutenant Eden, and, towards the close of the year, they

attacked a village near Sadiya and killed two of its inhabitants. Two years later they cut up a village in close proximity to the sepoy lines at Sadiya, and steps were taken for the organization of a punitive expedition; but, in cons quence of the outbreak of the Mutiny, it had to be abandoned. Further raids followed, and the experiment was then tried of supplying arms to the Khamti settlers on the frontier, with the idea that they would form a screen against the aggressions of the Mishmis. The experiment proved to be a complete success, and for twenty years the peace of the frontier was undisturbed as far as the Mishmis were concerned. In the cold weather of 1878-79, the Bebejiyas committed two small raids into the plains and murdered two Khamtis and two Assamese; and, though a party of frontier police was promptly sent out in pursuit, they had to return without seeing anything of the hill men.

Unfortunate consequences of a visit to Calcutta.

In 1885, a British subject was murdered at Dikrang, his death, so rumour reported, being indirectly due to an attempt made to tame the savage hillmen by showing them the might and majesty of civilization, or so much of it as is represented in Calcutta. The headman of the Medakhel was taken to the Calcutta Exhibition, and on his return incontinently took to his bed and died. The British Government, sad to say, was held responsible for this unfortunate event. It was accordingly decided that a *sarkari* head must be buried with the body of the travelled Mishmi, to propitiate his spirit, and the nearest head available was forthwith taken. A blockade was at once proclaimed against the Chulikatta Mishmis, and

they were excluded from our markets, but as they were still able to obtain supplies from the neighbouring hillmen who were allowed to come to Sadiya, the blockade was not effective. In 1887-88, the matter was settled bv the payment of a fine of Rs. 2,000, and the blockade was raised, as there seemed to be little hope that even if it were continued it would lead to the surrender of the culprits.

Expedition of 1899-1900. In 1894, the Mishmis were included in the blockade that was declared after the conclusion of the Abor expedition, as they were believed to have given the Abors their countenance and support, but they were once more admitted to our markets in 1897-98. In May 1899, a party of Bebejiyas attacked the small Khamti hamlet of Mitaigaon, killed two adults, wounded two others, one of them mortally, and carried off three guns and three children. An expedition was despatched in the following December, which succeeded in rescuing the captives and recovering one gun. There was no fighting and practically no opposition; but the natural difficulties of the country were immense, and steep passes rising to 8,000 feet in elevation, dense forests, cold, snow, sleet, and rain were obstacles which prevented the advance of the troops, and circumscribed their operations. The total strength of the Bebejiya tribe is estimated at between 3,000 and 4,000 souls living in 31 villages, and the territory occupied by them at less than 500 square miles. The Mishmis trade in musk, Mishmi *teeta*, a febrifuge much valued on the frontier, wax, dyed coats, baskets, skins, and swords

which they have obtained by barter from Thibet. An account of the manners and customs of the tribe will be found in Dalton's Ethnology of Bengal, which has been reproduced in a slightly abridged form in the Statistical Account of Assam by Sir William Hunter Vol. 1. p. 322-332, so that no further reference to the subject is necessary here.

During the last forty years, the Mishmis have not, on the whole, given the authorities much trouble; and during that period, they were only responsible for four murderous raids, in which eight persons lost their lives. This for a savage tribe is a comparatively good record, and there are at present no signs of any feeling of unrest on this portion of the frontier. A trifling restriction has, however, been imposed upon the Digarus. The men of this tribe are keen rubber tappers, and it has been found necessary to forbid them crossing the Brahmaputra and entering British territory from the south side of that river, as they try, whenever they can, to tap the trees in the Government forests and pass the product off as rubber brought from their hills.

The Abors. West of the Mishmis come the Abors, though this is a term which means nothing more than foreigner or savage, the *βαρβαρος* of the Greeks, and is somewhat loosely applied to the tribes inhabiting the hills between the Dibang and the Subansiri. The most inportant section of this tribe are the Padam or Bor Abors, who occupy the country lying between the Dibang and the Dihang. West of them come the Passi

reached Kebang. Too much confidence appears to have been placed in the friendly professions of the Abors inhabiting the outer range, who were most submissive to the advancing column, but, after it had passed, ambushed and killed the coolies bringing up supplies. It is seldom safe to trust to the friendly professions of the hillmen, when an expedition is in progress, yet strangely enough this very same mistake was made in the Abor expedition of 1893-94.

The expedition of 1859.

Emboldened by the failure of our soldiers to reach their villages, the Abors began to assume a still more truculent attitude. They advanced their outposts further down towards the plains, and it was evident that strong measures were required, if the outlying portions of the district were to be protected from their raids. Accordingly in 1859, an expedition was despatched which numbered in all 374 officers and men, with two 12-pounder howitzers and two mortars The villages of Passi and Kinkong were stormed and burnt, but the enemy offered an obstinate resistance, holding no less than nine of the eleven stockades with which Passi had been fortified, and killing one of our men and wounding forty-four.

Raids in 1861 and subsequent submission.

The Passis then submitted, but the Meyongs continued to be hostile, and in 1861, cut up a Bihia village situated on the south bank of the Brahmaputra, only 15 miles from Dibrugarh. Government then decided to establish a chain of forts along the frontier, when the Abors, overawed by this display of energy, came in to make their peace. In 1862 and the following year, various sections of the tribe entered into agreements

with the Deputy Commissioner, and were promised small allowances of iron hoes, salt, tobacco, rum, and opium so long as they remained of good behaviour. These agreements were loyally observed for several years, but the tribe on more than one occasion gave evidence of their jealous and intractable disposition. The Membo Abors for example in 1863, went off in a temper and refused to take their presents, because the Deputy Commissioner declined to allow them to treat him with impertinent familiarity; and in 1865, the Meyong Abors absented themselves, because they resented the fact that the price of salt had risen in Sadiya bazar. In 1866, the Bor Abors came down to meet the Deputy Commissioner, and entered into agreements like the rest, a fact which no doubt produced a good impression upon the other members of the tribe. Ten years later, the Trignometrical Survey Party entered the hills, but the tribes showed signs of unrest and evidently regarded their advent with suspicion, and it was accordingly thought advisable to discontinue the operations.

Mr. Needham visits the hills 1884-1886.

At the end of 1884, Mr. Needham, the Assistant Political officer at Sadiya, visited the villages of Membo, Gina, Romkong, Balek, and Monku, and every where met with a hospitable reception. In the following year, he visited the Bor Abor villages of Padu, Kumku, and Silli; and at the begining of 1886, he returned to Membo with the object of throwing a suspension bridge accross the Siku. But though the Abor shad themselves asked for the erection of this bridge, they declined to allow the work to be carried out, alleging, as an excuse, the insufficieucy of the

materials, though in reality they were influenced by distrust of the motives of the Government. On the occasion of these visits, the hillmen discussed with Mr. Needham the grievances which they professed to have against the Government, most of which were, however, of a somewhat frivolous description. They objected to the establishment of outposts near the hills, and to the orders prohibiting them from coming armed to Sadiya. They complained that the allowances paid to them were insufficient, that runaway slaves who had succeeded in escaping into our territory were not returned, and finally, a source of irritation that was easily removed, that the Mishmis had better accommodation provided for them when they visited Sadiya. The results of these visits were considered to be satisfactory. The Abors had not been visited since 1855, and it was thought that these tours conduced to a better understanding with the hill-men. At the same time, in the opinion of the Chief Commissioner, certain elements of difficulty and possible danger had been brought to light. Such was the confidence of these savages in their ability either to institute or repel attacks, that he was inclined to doubt whether any course of amenity or justice would have a beneficial effect, till they had been compelled to recognise the overwhelming strength of the British Government. In writing in this strain he sounded a note of warning, unfortunately fully justified by the subsequent conduct of the tribe.

Increasing Insolence of the Abors 1887-1892. In 1887, the Abors abducted a Miri who had crossed the Inner Line without obtaining a pass, but the man

escaped, and two other minor acts of aggression were adjusted without difficulty. Two years later a much more serious outrage was committed. Four Miris were decoyed across the Inner Line by men from the Meyong villages of Yomsing and Ledum, and then cruelly put to death. A blockade of the Passi-Meyong country was forthwith established, by posting guards at Kathalguri, Dipimukh, Hilonimur, and Pobamukh, and so great was the inconvenience caused, that the powerful village of Kebang compelled the offending communities to send in apologies with a propitiatory offering of sixteen mithun (*bos frontalis*). The fine and apology were accepted and nothing more was done, but the Bor Abors as well as the Meyongs showed signs of giving trouble. In 1889, they seized some mithun which were being taken by the Mishmis along the Bomjur road, on the ground that the Mishmis had no right to trade with us direct, but released them on receipt of a remonstrance from the Assistant Political Officer. In 1891—92 and 1892—93 the Abors from Damroh, the largest and most powerful of the Bor Abor villages, failed to attend and draw their allowances at Sadiya, and, in November 1893, their veiled hostility broke out in open violence. On the 27th of that month three military police sepoys, who were patrolling between Bomjur and Kerimpani, were murdered in British territory and their rifles carried off. Less than a month later, a second attack was made on a patrol of seven sepoys, three miles south of Kerimpani, and one of them was killed and another wounded before their assailants could be beaten off.

The Abor expedition of 1893-94. Such insolent violation of our territory could only be adequately punished by an expedition, and in view of the difficulties experienced in the past, it was decided that the force should consist of not less than 500 men, 100 of whom were regular sepoys, and the remainder military police. Bomjur was occupied without resistance on January 15th 1894, and after leaving 100 men to guard the base, the rest of the force advanced on January 20th to Dambuk, a powerful village twelve miles distant from Bomjur. The Abors opposed this force almost from the very outset, and it was ultimately stopped by a huge stockade of trees, on which the mountain guns made no impression, and which was subsequently found to be 1,800 yards in length. The stockade was, however, captured with a loss of three men killed and twenty-seven wounded, and on the following day Dambuk was occupied, the inhabitants having fled. Sipu and Silluk were then visited, the stockades erected to bar our passage captured, and, though the Abors rushed the baggage coolies, they only succeeded in killing and wounding eight, and were driven off after leaving ten of their own party dead.

The advance on Damroh. It was then decided to punish the Damroh group of villages for having sent men to oppose our advance on Dambuk and Silluk. Membo and Padu were occupied in February, but, as they offered no resistance, were not destroyed, and preparations were then made for the advance on Damroh. Owing to difficulties of carriage, it was decided to leave the bulk of the rations at Bordak, under the charge of the *gam* or Abor chiy

of Gina and the *gam* of Padu, together with a small detachment of sick and weakly fighting men and a few followers. The rest of the force proceeded to advance to Silli, Dukku, and lastly to a camp on the Yamne river. On the Yamne the Abors again began to display a hostile attitude, and Lieutenant East was wounded by an arrow; but his escort managed to kill three of the enemy before they succeeded in making their escape into the jungle. On February 27th, Mr. Needham determined to leave one hundred men to guard the camp at Yamne, and to attempt to reach Damroh with the remainder of his force. Great difficulty was, however, experienced in discovering the path, and as at 2 P.M. Damroh was still invisible, he reluctantly decided to return. In the evening a *gam* from Dukku came in to say that he had been sent from Damroh to sue for peace, and Mr. Needham promised to receive a deputation on the following day, but, though he waited for it, none appeared. Information was then received to the effect that the villages which had already submitted had determined to oppose the return of the force, as it was thought that they would be short of ammunition, and fears began to be entertained for the safety of the detachment at Bordak.

The return march and massacre at Bordak.

The return march was accordingly begun, and on reaching Bordak on March 4th, it was seen that these fears were unfortunately only too well founded. The camp was gutted, the rations removed or destroyed, and the unfortunate sepoys and followers were stretched lifeless on the ground. A follower who had succeded

in escaping and swimming to the opposite bank of the river, stated that some two or three hundred Abor coolies had come into the camp with the ostensible object of taking on the rations. As the sepoys and followers were carrying the stores out of the godown, they were suddenly set upon by the Abors and cut down; the total loss amounting to a subadar, a havildar, fourteen sepoys, and nineteen followers. As a punishment for this piece of treachery, the villages of Kumku, Padu, and Membo were destroyed, and the force finally reached Sadiya on March 14th.

The results of the expedition were summarised as follows in the report.

"The expedition on the whole has been eminently successful. We have taught the Abors a severe lesson. We have destroyed the villages concerned in the murder of our patrols, and all other villages that opposed us in any way. We have caused the Abors considerable loss in killed and wounded, and much property has been destroyed. We have shown them that their mountainous country can be traversed by us, that we can visit any of their villages, and that their strongest stockades cannot stop us. Our only misfortune has been the massacre at Bordak, and this was owing to treachery."

Blockade imposed on Bor Abors and Passi Meyongs.

The hill men were still in possession of several of our rifles and of property looted at Bordak, and a blockade was accordingly proclaimed against all the tribes living north of Sadiya and on the left bank of the Dihang.

The payment of *posa** to these villages was discontinued, and the inhabitants of Bomjur were prohibited from rebuilding their village on the former site. The last named order was treated with absolute contempt, and as the Abors did not remove the houses they had re-erected when called upon to do so, they were burnt by the Assistant Political Officer in March 1895. Even this was not enough to teach them that we were in earnest. They once more began rebuilding, and, when Mr. Needham visited Bomjur some nine months later, he found 23 new houses there, which again he had to burn. After this second visit the Bomjur Abors realized that the orders of the Government of India in a matter of this kind could not be disregarded with impunity, and the village was definitely removed to a site a little further up the river. The results of the blockade were eminently satisfactory. During 1894 most of the rifles were returned, and, though some of the stolen property still was missing, the Abors in 1895 brought in a large boat and nine mithun in its place. In 1896, the blockade against the Passi Meyongs was raised, as it had only been imposed from fear lest the Bor Abors might supply themselves with salt and other articles they required, through the agency of their kinsmen. The blockade against the Bor Abors was maintained till 1900.

Movement of the Abors into the Plains.

In 1897, the Passi Meyongs, urged on by that vague impulse which for centuries has been sending successive

* Posa is an allowance given to hill tribes, generally in lieu of certain rights to levy taxes from the submontane tracts to which they established a claim in the days of native rule.

waves of immigrants from the hills into the valley of the Brahmaputra, began to settle in the plains; but, when called upon to pay poll tax, demurred on the ground that the land which they were occupying lay outside the Inner Line. The objection was, however, withdrawn after they had been been visited by Mr. Needham, and they were clearly warned that British territory extended up to the foot of the hills. In the same year some Bor Abors settled in the plains on the left bank of the Dihang, north of the Sibiya river. They too claimed the land as outside the Inner Line, but as they had come there without leave, they were ordered to withdraw, and on their failing to do so, the village was incontinently burnt. In 1901, it was found that about 50 families had settled on the Dihang above Sibiya-mukh; and it was decided that as the blockade had been raised, they might be allowed to remain, provided that they did not attempt to move south of Sibiya-mukh, that they were of good behaviour, and that they paid poll tax as an admission of the fact that they were in British territory. No trouble has as yet been experienced from this colony.

The Passi Meyongs. After the blockade of the Passi Meyongs was raised in 1896, they began to trade with Dibrugarh in preference to Sadiya. It was considered that this was undesirable, as they ceased to come under the influence of the Assistant Political Officer, and in 1901, orders were issued prohibiting them from visiting Dibrugarh, but in many instances they were evaded. This tribe prefers a claim to the country lying between their hills and the Inner Line,

and occasionally attempts to assert its title by levying blackmail on timber cutters, fishermen, and others. Government has, however, continuously laid down that British territory extends right up to the foot of the hills, and that the Inner Line has only been laid down for the purposes of administrative convenience.

The Doba Abors have never within recent years been a serious source of anxiety to the Government. They come down to Sisi and Dibrugarh, and, as they were said to harass the raiyats in the Sisi and Dhemaji mauzas, a police station and guard were located at Kathalguri about six miles west of Sisi in 1889 Subsequently the guard was removed to Sisi, and the thana to Dhemaji. In 1903, the Mantaram and Sarusaku Gallongs raided the Jaktoli village in the Dhemaji mauza, looted four houses, carried off two girls, and injured several people. It was found that the raid was due to the dishonest conduct of Tatum, a Sarusaku *gam*, who had misappropriated money due to the offending parties. The two girls and most of the stolen property were soon brought in, the raiders were punished with a fine, and the dishonest *gam* was confined for a year as a political dêtenu in the jail at Dibrugarh. **The Doba Abors.**

The hills to the west of the Abor country are inhabited by the Miris, who are divided into four main sections; the Ghasi Miris who live east of the Subansiri, the Saraks who live on the right bank of that river, and the Panibotias and Tarbotias who inhabit the country further to the west. **The Miris.**

The Miris appear to have been employed by the Ahoms as soldiers, and their services were no doubt of value when expeditions were sent across the Assam range; but they seem to be naturally of a very peaceful disposition, and no tribes on the frontier have caused less embarrassment to the British Government. It has never been necessary to send an expedition into their mountain fastnesses, and they have shewn their appreciation of a settled form of Government by migrating in considerable numbers to the plains. Murderous raids are practically unknown, and, though they have occasionally carried off people from British territory to emphasize their grievances, no difficulty has ever been experienced in recovering the captives.

The Daflas. In the hills to the west of the district live the Daflas, a tribe who have never given much trouble in Lakhimpur. Such complications as have from time to time arisen, were generally due to quarrels between the hillmen and the Daflas who have settled in the plains.

Raid in 1887. One of these cases occurred in October 1887, when a party of hillmen raided the settlement of Tarang *gam* on the west bank of the Dikrang river, about three quarters of a mile from the Harmati garden. Fifteen persons in all were carried away, and Tarang, with his brother and wife, were killed. This was not, however, a case in which it was thought necessary for Government to interfere. There seemed little doubt that Tarang had drawn down this summary vengeance on himself, by the oppressive and arbitrary treatment to which he had subjected several of the hillmen when

passing by his village; and only a month before the raid, he had been warned by the Assistant Commissioner of the probable consequences of his actions, and advised to move further from the hills. The raid took place just beyond the Inner Line, a fact of which the hillmen seem to have been well-aware, and the Chief Commissioner did not consider it necessary to intervene in this domestic feud. The most disturbing factors, amongst the Daflas adjoining Lakhimpur, are two *gams* in the Dikrang Valley called Muji and Chiring. In the winter of 1893-94, these *gams* seized some plain Daflas who had gone up to the hills, and it was found necessary to detain some of Muji's people in the plains, before he could be induced to return the captives.

A Dafla press gang in 1899.

In February 1899, a rather curious incident occurred, which shows how strong is the desire amongst these hill people to keep up their population. In these small communities the balance of power is easily affected by a slight increase in the death rate, and every person counts. This no doubt had much to do with the development of the law, so common on the frontier, that life should be taken for life in intertribal warfare. On this particular occasion, it appears that Chengmara, the village of a *gam* called Pareng, had been raided by hill men from the Dikrang. Pareng thereupon descended to the plains, and after enlisting in his service some Daflas from the village of Katoni near the north trunk road, attacked a party of hill men from the Poma Pani, who happened to be stopping in the neighbourhood. Pareng had no previous quarrel with these

people, and seems to have been solely actuated by the desire of increasing the population of his village, but in the course of the affray three men were injured and four were carried off. The Police however, were promptly on the spot, the captives were recovered, and Pareng convicted and sentenced to two years rigorous imprisonment.

The Ankas or Apatanangs.

The Ankas or Apatanangs, as they are sometimes called, are closely akin to the Daflas, and occupy a fertile valley, lying to the north of the hills inhabited by that tribe. This valley is described by Mr. McCabe, who visited it in 1897, as a magnificent plateau, some ten miles in length, laid out in highly cultivated and artificially irrigated terraces, which are watered from the Kali river. To the force which had reached it after an arduous march over hills covered with dense forest, it seems to have appeared a veritable land of promise. The level of the plain was broken up by small isolated hillocks and low pine clad spurs ; the stubble on the ground showed that there had been an abundant harvest, and primroses, violets, and wild strawberries recalled the meadows and woods of England.

Eight villages were situated amongst the rice fields in fairly close proximity to one another: Hong, Krachi, Katipu, Hari, Hut, Nichebamin, Modutaji, and Hija. The total population is estimated to amount to some 15,000 souls, so that they can put in the field, at a few hours notice, a body of fighting men who would by far out-number any raiding party from the more scattered villages of the neighbouring tribes. On

the other hand, the inferiority of the Ankas in arms and physique reduces them to a comparatively low level as an aggressive power. They are smaller and of a less robust build than the Daflas, and their peculiar characteristic is the tail of plaited cane, which they habitually wear around their waists. In 1889, the valley of Hong was visited by Mr. Crowe of the Joyhing Tea Estate, who was on friendly terms with the hillmen on the frontier, and four years later this gentleman escorted Captain Dunne into their country. The German explorer Herr Von Ehlers entered the valley in 1895, but as he was not like Mr. Crowe, personally known to the people, he met with but an inhospitable reception, and was robbed and turned out into the fields. In 1896, a party of Ankas put up at the house of one Podu Miri near the Kadam Tea Estate, and when the family had peacefully lain down to sleep, killed Podu and his stepson, and carried away four captives. Three months later, a small expeditionary force was despatched into the hills, which reached the valley of Hong, rescued the prisoners, and punished the Ankas by compelling them to release six persons whom they had carried off a short time previously from a friendly Dafla village. The comparative leniency of this punishment was due to the fact that the Ankas seem to have had a genuine grievance against Podu. Since that date they have not given any trouble while in British territory.

The Nagas. The hills to the south of Lakhimpur are inhabited by various tribes of Nagas, all of whom, with the

exception of the Sarkari Nagas whose villages are situated north of the Tirap, live beyond the frontiers of the district. In the hills south of Jaipur live the Namsangias, and further south again the Borduarias; while some way to the east and south of the Tirap live the Rangpangs.

The Namsangias and Borduarias. In 1884, it was estimated that the Namsangia tribe numbered about 6,000 souls, while the Borduarias were about 3,000 more; but the data are so imperfect that it is impossible to place much reliance on these estimates. The two tribes are at feud with one another, but do not, as a rule, carry their quarrels into British territory, though from time to time unpleasant incidents have taken place, which have necessitated the intervention of the British Government. A typical case occurred in 1888, when a party of Namsangia Nagas carried off six of their fellow tribesmen from the Dillih village, and put two of them to death. The Deputy Commissioner fined the Namsangia chiefs Rs. 1,000 and fifteen guns for this violation of our frontier. The Chief Commissioner considered this punishment to be quite inadequate, but he abstained from interfering with the decision of the local officer, as he was unwilling to do anything, which might possibly tend to weaken his authority.

Gradual extension of our influence over the hills. The development of the coal mines near Margherita, and the opening of the Makum garden offered a fair field for the employment of Naga labour on jungle cutting and similar rough work, of which the hillmen were not slow to avail themselves: and, in 1893, one company had more than 2,000 Nagas, working at one time. They

caused, however, considerable annoyance by their petty thefts of cattle, iron implements, and similar articles; and in order to check these depredations, the strength of the guard at Ledo was raised in 1897 from 11 to 20 men, and an outpost of 10 men was stationed at Tikak. In 1902, these two outposts were abolished, and in their place one was established on the Lungchong Hill, a day's march south of Namdang, with the object of protecting a peaceful tribe of Nagas, who, in token of their submission to our authority, had assumed the title of Sarkari. Subsequently, in 1904, the Inner Line was thrown back to the Tirap, and the hills inhabited by these people were definitely incorporated in the district. There are few places where civilization and savagery are brought into closer proximity than at Margherita. A striking instance of this occurred in 1902, when two Nagas, who were peacefully walking along the railway in search of work, were kidnapped and carried off into the hills. One of them escaped, but the other was taken to the Yogli village, and when the captors were ordered to give him up, they replied that he was not a British subject, and that they proposed to use him as a human sacrifice. The Deputy Commissioner accordingly visited the place with a small escort, rescued the prisoner, and, as the people declined to come in and meet him, burnt the village.

No attempt is made to interfere with inter-tribal feuds beyond the Inner Line, but the chiefs of the Namsangia and Borduaria tribes have signed agreements to respect our territory, and to abstain from annoying

travellers using the paths leading to the plains. Few tribes beyond the frontier are more amenable to control. They speak Assamese, they have embraced the Hindu religion, and, as they earn large sums of money by trading or labouring in the plains, exclusion from our territory would, entail a heavy punishment. The Borduaria Raja holds 200 bighas* of land revenue free in the plains, while the Namsangia Raja is paid Rs. 450 a year on account of the Hukanjuri tea seed garden. There are thus ample means of bringing pressure on the tribe without entering their country, and the hills themselves are easy of access, and present no special difficulties to the advance of small bodies of men. They were visited by the Deputy Commissioner in 1901, and he recorded the following note upon the people and their customs.

Description of Namsangia and Borduaria Nagas.

These two tribes are our nearest neighbours on the Jaipur side. They are closely related and were originally no doubt one people. Now, however, they are on anything but good terms. The Borduarias are considerably the more powerful, but each has too wholesome a respect for the other power, to indulge in open warfare. For a long time the Namsangias had to recognise the superiority of the Borduarias, and, when an animal was killed by the former, a rib was given to the latter. This custom has now been discontinued, and the chief reason of the constant feuds is that the Borduarias still wish to be acknowledged as the paramount tribe, while the Namsangias claim equality.

I halted a day in the Borduaria village, and examined it with some care. The village proper contains some two hundred houses, and on each of the outlying spurs is a group of houses, which serves as an advanced post. The Borduarias assured me that they could them-

* A bigha is about one third of an acre.

selves put a thousand warriors in the field, and they are allied with other villages and tribes, such as the Kaimai, the Paniduarias, the Palongias, etc. The Borbanchangs are said to be more powerful than the Borduarias, and the Bormithunias are in alliance with the Namsangias. I am not aware on what information the strength of these Nagas, as given in Mackenzie's North-East Frontier, is based, but doubt the accuracy of the figures. Time did not permit of my visiting any other villages, and without doing so, no definite information can be had.

As regards religion, customs, and means of livelihood, the Borduarias and Namsangias can be taken together. They are Hindus now, adherents of one of the Sibsagar gosains. According to their own story, they have been Hindus from the earliest times, but in reality their conversion is probably of recent date. All enquiries on this subject proved fruitless. On our way down from the Borduaria village, we passed two separate spots, which Bor Dangariyas (friendly spirits) were believed to inhabit, and each Naga of our party piously threw his twig or leaf on the heaps that marked the places. Some of the other tribes are wholly or partly Hinduised, but on this point reports varied considerably.

The manufacture of salt is carried on to a very considerable extent. In the course of my tour I saw 15 or 16 ptimitive stills, and was informed that there are several others. The method of manufacture is as follows :—

Wells have been sunk at various places and lined with hollow tree trunks. From these water with a slightly saline taste is baled out and stored in rough bamboo vessels. Each well has close by one or more rude furnaces of baked clay, open at the top. The furnace is charged with fuel, the bamboo vessels are placed side by side across the opening, and a fire is maintained till the process of evaporation is complete and only salt crystals are left in the vessels. This salt the Nagas use, and trade both among themselves and with the people in the plains.

The poppy is cultivated further back in the hills. I saw none in the course of my tour, but was shown several poppy heads from which the juice had been extracted. It is possible that a certain amount of hill opium finds its way into our territories.

Economic development of the district.

Apart from the troubles on the frontier, the history of Lakhimpur, since it came under British rule, is one of continuous expansion, for which it would be hard to find a parallel in any other rural district of India. In the last half of the nineteenth century the population increased nearly fivefold, and the settled area nearly six fold; an extraordinary development for a district in which there is only one town, and that a town with barely 11,000 inhabitants. These wonderful results have been obtained by the introduction of a settled form of Government, by the improvement of communications, and by the application of the magic wand of British capital to a healthy but sparsely populated district, with great natural resources.

Lakhimpur Assamese in little more than name.

Some of the consequences of this development are perhaps a little curious. Lakhimpur the most remote and easterly portion of Assam, is Assamese in little more than name. Nowhere in the valley are there many Assamese of wealth, intelligence, and influence, but in no district are there fewer than in Lakhimpur. In this portion of the Province, capital and labour, enterprise and education, trade and crafts are all alike represented by the foreigner. Lakhimpur has in fact been "discovered" by the British. They found it a remote inhospitable jungle, inhabited by a rude and scanty population, who were at the mercy of the even ruder tribes who haunt the hills that surround it on three sides. They felled the forests and turned them into prosperous tea gardens, they imported labourers in thousands, whose requirements in grain and clothing

the Marwari merchants were not slow to fill; and thus it has come about that all the wealth and all the weight and influence in the district are in the hands of foreigners. In the Dibrugarh subdivision alone, there was a European population in 1901, of 431 souls, and in many essentials Dibrugarh might be regarded as no less English than Australia or the Cape. Amongst the native community, commerce and capital are centred in the merchants of Marwar, while the keen witted Bengali dominates the bar and occupies nearly all the posts for which special intelligence is required. The huge labour force of Lakhimpur is drawn from every portion of India except Assam,* and thousands of these industrious coolies have now settled down to cultivation, and are reaping the rich profits from agriculture which are despised or neglected by the Assamese. It must not, however, be supposed that the indigenous inhabitants have suffered from the advent of the foreigner. They have increased considerably in numbers, and, had there been no immigration, they would undoubtedly have been less affluent than they are at the present day. They have failed to take advantage of the extraordinary opportunities that have been offered to them, and they have obtained a comparatively small share of the great store of wealth that has been extracted from the district; but for this the tastes and inclinations of the people are to blame. The Assamese of Lakhimpur prefer, as a rule, indolence and opium to a strenuous and active life, and so long as they are dominated by these faineant ideals, it

* Not 3 per cent. of the labour force are indigenous inhabitants of Assam.

is idle to expect that they will make much progress along the path of material comfort.

Exploration beyond the frontier.

Neither on the north, east, or south, have the boundaries of the district ever been definitely laid down; and the story of the various attempts that have been made to penetrate the mysteries of the jungle covered mountains, that surround the plains of Lakhimpur, come thus within the four corners of our brief. Apart from the work done by the expeditions despatched against the Apatanangs, the Abors, and the Mishmis, exploration has mainly been carried on in three directions;—up the Brahmaputra eastward to the valley of Rima or the Zayul-Chu; into the Khamti territory in the south-east; and across the Patkai into the Hukong valley.

The following account of the various expeditions into the Zayul valley, prior to the one headed by Mr. Needham, is reproduced from some papers in the Secretariat*

First attempts to penerrate the Zayul valley.

"The existence of a route into Tibet, by the upper waters of the Brahmaputra, has been known to the Indian Government ever since the British occupation of Assam. A list of the stages from Sadiya, numbering twenty altogether, was obtained by Lieutenant Neufville in 1825, and published in the *Asiatic Researches*. In 1826 Captain Wilcox succeeded in advancing three quarters of the way to Rima, along the southern or left bank of the Brahmaputra, but was there stopped by the refusal of the Miju Mishmis to allow him to pass through their country. Ten years latter, in October-November 1836, Dr. Griffiths followed the same route to a point about half way between Sadiya and Rima, and then crossed the Brahmaputra, and visited some Mishmi villages on the northern side; but he too, was deterred from attempting

* Letter No. 1194 dated the 21st June 1886 from the Secretary to the Chief Commissioner to the Secretary to the Government of India Foreign Department.

further progress, by the refusal of the easterly Mishmi chiefs to give him a safe conduet. Lieutenant E. A. Rowlatt, in November-December 1844, was the first explorer who took the route which Mr. Needham subsequently followed, along the right or north bank of the Brahmaputra. He got as far as the river Du (or Mdaun) within sixty miles of the Tibetan border, and turned back on being told that the intervening country was destitute of inhabitants, a state of things which does not exist, now whatever may have been the case sixty years ago. In 1851 the French missionary, M. Krick, succeeded in entering Tibet by the same route, and in returning to Assam with safety; and in 1854 he penetrated into the Zayul valley a second time, in the company of M. Bovry, but both the travellers were barbarously murdered by the Mishmi chief Kaisha. In December 1869 and January 1870, Mr. J. T. Cooper attempted the journey towards Tibet by the route along the southern or left bank of the Brahmaputra, but was prevented from proceeding by the refusal of the Miju chiefs to admit him into their country. His farthest point was several marches short of that attained by Wilcox in 1826. In 1879, the Khamti chief Chowsa, who accompanied Mr. Needham on his expedition, got as far as the borders of Zayul by the northerly route (Lieutenant Rowlatt's), but was prevented by the Tibetan authorities from entering the valley.

Mr. Needham's march in 1885-86.

The route taken by Mr. Needham from Sadiya to Rima is estimated to be about 187 miles in length, and can be most easily considered, if divided into five sections. The first section from Sadiya to Tamemukh lies entirely in the plains, and is 46 miles in length. It runs for the most part up the bed of the Brahmaputra, or through the jungle on its banks, and a good cold weather track could probably be cleared without much difficulty. The second stage, 24 miles in length, to Chowsa's village, includes some rough marching over various ranges, the highest pass being 4,500 feet above the sea. The third stage of 17 miles to the Dalei river is rather difficult, and in one place the route usually

followed by the Mishmis runs along the face of a precipice some two or three hundred feet above the Brahmaputra, in which there are merely a few niches in the rock to afford a precarious foot hold. A better path which is passable for cattle is, however, to be found higher up the cliff. The fourth section is 74 miles in length, and comprises the country traversed between the Dalei and the frontier of Zayul. Here too there was some difficult walking, and more than once the path consisted of little more than a few steps cut on the face of the cliff. The fifth stage of 26 miles from the border of Thibet to Rima presented no serious difficulties to the travellers. Above the Dalei, the valley of the Brahmaputra is about half a mile in breadth, and Mishmi villages in their small clearings in the jungle were not unfrequently to be seen. The river is crossed on cane hawsers which sag towards the centre. The traveller puts a loop of cane round the small of his back and in this way slides down to the centre of the rope, and then works his way with hands and feet up the further side. As these ropes are often suspended at some distance above the river, these bridges, for a person with sensitive nerves, leave much to be desired.

Description of Zayul Valley.

M. Krick is said to have described the valley of Zayul as a tract cultivated as far as the eye could reach, and abounding in herds of oxen, asses, horses, and mules, and in groves of bamboo, laurels, orange, citron, and peach trees. The Pandit A. K. who lived in Zayul from the 23rd May to the 9th July 1882, describes the winter crops as rice, millets, and pulses, and the spring crops as

wheat, barley, and mustard; the domestic animals being oxen, half-bred yaks, horses, pigs, and fowls. Mr. Needham also found a good deal of terraced cultivation, but his description of the valley is couched in less glowing terms than those of his two predecessors, though, as he met with a far from hospitable reception, his opportunities for examining its resources were but small. The Mishmis trade with the inhabitants of Zayul, exchanging grass, bark, dye stuff, musk pods, and deer skins, for salt, cattle, woollen coats, metal vessels, swords, beads, silver amulets, and ammunition; but neither the Miju clan of Mishmis nor the Thibetans are allowed to trade directly with Assam. Little difficulty would, however, be experienced in constructing a practicable trade route, if on political or commercial grounds it was considered to be desirable to do so.*

Expeditions to Bor Khamti.

South of the Brahmaputra, more than one expedition has gone to Putau the capital of the Bor Khamti country. The first officer to explore in this direction was Wilcox, who reached Bor Khamti in 1826, but for many years he had no followers. Of recent years three separate parties of explorers have visited the valley. Colonel Woodthorpe and Major Macgregor in 1884-85, and Mr. Errol Gray in 1892-93 entered Bor Khamti from Assam, while in 1895, Prince Henry of Orleans passed through it in the course of his journey from Tonkin to Calcutta The first stage of the journey follows the Noa Dihing river for 67 miles and calls for little comment. The

* Mr. Needham's diary of his journey will be found in Assam Secretariat File No. 1735 J. of 1886.

country is sparsely peopled with Khamtis and Singphos, but presents no special difficulties to the traveller. The path then runs up the Diyun valley as far as the Merit, a distance of about 45 miles. The country is, for the most part, covered with dense forest, haunted by elephant, rhinoceros, and other big game, and in places the going is extremely bad. After leaving the Diyun, the track crosses a pass 8,300 feet above the level of the sea, which in the winter time is often deep in snow. Two marches further on, the Makoshat mountain has to be crossed at a height of nearly 9,000 feet, but the path then sinks to the Phungma river which is less then 5,000 feet above sea level. From there it is three short marches to Langnu, which is situated at the southern end of the Bor Khamti valley about 1,500 feet above the sea.

The Bor Khamti Valley.

The Bor Khamti valley is said to be on the average about fifteen miles in width, though in places it is as much as twenty-five. The soil is very fertile and large crops of rice are raised which are stored in excellent granaries. Prince Henry of Orleans, though little predisposed in favour of the people, describes the place in glowing terms. As far as the eye could reach stretch rice fields, yellow as the plains of Lombardy. It is a splendid territory, fertile in soil and well watered, where tropical and temperate culture flourish side by side, and the inhabitants are protected on three fronts by mountains. The population was estimated by Mr. Gray to be about 11,000 souls, 3,000 of whom perhaps would be fighting men, living in 17 villages. The village of the Langnu Raja was surrounded by a double

palisade of planks interlaced with split bamboo. The houses were large commodious structures, raised on piles, and in the Raja's house there was a hall of audience, fifty feet long and proportionately wide. The people are in fact much more civilized than most of the tribes on the north-east frontier, and there is a temple in the valley, ninetyfive feet high, adorned with a gilded cupola, and with several statues of Buddha, some of which are carved from fine white marble.

But, if civilized, the Khamtis are most extortionate, and every chief and person of importance expected to receive a handsome present. More than one gun was handed over by both the British parties, and a considerable store of opium was expended. The people were willing to buy and sell, but it was only for a price. At Putau, the capital, Mr. Gray could obtain no firewood for his followers till he had bartered away some fifteen rupees worth of opium. He was anxious to ascertain whether he could not get through to China, but was informed that it was hardly practicable. The country was occupied by Khakus, a wild and savage people living in independant villages, each of which would demand a substantial sum for permission to pass through their territory. A really wealthy traveller, prepared to scatter opium and guns with both hands, might possibly get through, but for such a man there was serious risk of being robbed en route.

Prince Henry of Orlean's travels.

Mr. Gray was accordingly compelled to return along the path by which he came, and it was reserved for a Frenchman to be the first European to travel over land

between China and Assam. In 1895, Prince Henry of Orleans started on his journey westward, from a place called Tsekou, on the upper waters of the Mekong. The initial stages of the journey were fairly easy, and as far as the Salween, the party found it possible to take their mules, but after crossing that river the path became only possible for men on foot. The people, however, offered no objections to the advance of the explorers; and they were willing to act as porters, and ready to sell food at reasonable prices. Between Deidoum and Mandoum, the path in many places is very bad. "Jagged points, slippery surfaces, crumbling brinks, creepers that tripped, worm eaten trunks up which to swarm, almost vertical ladders to climb, formed of wooden pickets driven into the face of over hanging bluffs, often hauled by sheer strength of a couple of men and liana drag ropes over boulders"—such is the description given by the gallant French explorer.

But the people, far from being the avaricious robbers depicted by the Khamtis, showed themselves far from unreasonable in their demands. Near Mandoum the offer of a spoon was sufficient to procure a competent guide, and all along the route, as far as the Khamti valley, comparatively little difficulty was experienced in obtaining food and porters at fairly moderate rates. The path, though bad in places, presented no insuperable obstacles, and though the travelling was rough, the existence of a friendly population largely facilitated the movements of the party. But in the Khamti valley everything was changed. At the first village they

were called upon for a present, a novel demand which had little to commend it. An offer of five rupees was met by a demand for one hundred, whereupon the party fell in, guns to the front, and the villagers quickly contented themselves with one tenth of the sum that they had originally asked. The conduct of these people was but of a piece with that of the other inhabitants of Bor Khamti. Every one demanded something, and, short of actual molestation, they behaved like actual brigands. Their treatment of Prince Henry does not seem to have materially differed from that accorded to the other parties sent from India; but how unlike it was to the conduct of the tribes inhabiting the territory between China and Bor Khamti is to be judged from the explorer's indignation and disgust. And these, forsooth, were the people who had told Mr. Gray that the blackmail levied between Bor Khamti and China would almost be prohibitive. It seems, in fact, to be fairly clear that the march from Bor Khamti to China is easier than the journey from Bor Khamti to Assam. The natural difficulties are not greater, if as great, and the whole question is much simplified by the existence of a number of villages from which supplies and porters can be obtained. At the same time, it is difficult to believe that this path could ever advantageously be opened up as a trade route. The distances are too great, the physical difficulties too serious, and, in Prince Henry's opinion, it has small chance of ever becoming an artery of commerce.*

* For further particulars see (1) Account of Col. Woodthorpe's expedition up the Dihing and into Bor Khamti, (2) Mr. Gray's diary printed in F. A. Progs., May 1894, Nos. 7-15, (3) From Tonkin to India by Prince Henry D'Orleans.

The Patkai For many centuries there has been communication between Lakhimpur and Burma over the Patkai Hills. It was by this route that the Ahoms entered Assam in the 13th century, and it was across the Patkai that the Burmese retired nearly 600 years later, when they were driven out of the Brahmaputra Valley by the British troops. The first European to cross this range was that eminent traveller Dr. Griffiths in the winter of 1836-37, but for many years he had no followers. In 1892, Mr. Needham crossed the hills to Maingkhwan, and there met an expedition which had advanced up the Hukong valley from Burma. In the cold weather of 1895-96, a reconnaissance survey was made for the purpose of estimating the cost of carrying a railway over the hills to Burma. The party marched *via* Ningrangnong and Namkri, to the summit of the Patkai, where their camp was pitched at about 4,000 feet above sea level. They then followed the Nongyong to its junction with the Loglai, went down that river till it fell into the Turung, and marched along the Turung into the Hukong valley. The party experienced no difficulties in this journey, but it was clear that the cost of carrying a railway over the hills would be extremely heavy. The Hukong valley is very fertile, but is sparsely peopled, and the long march over the hills is a serious obstacle to the development of much trade between Burma and Lakhimpur.

Archaeology The ruins near the Dibang gorge. Some of the most interesting remains in the district are the ruins of two forts between the gorges of the Dikrang and the Dibang, about 24 miles north of Sadiya, which are assigned by tradition, the one to Bhismaka,

the other to Sisupal. The following description of these forts is taken from the *Calcutta Review.**

"The extent of Sisupal's fort", observes Captain Rowlatt in his 'Report of an Expedition into the Mishmi Hills,' "is considerable, as it took me about four hours to walk along one side of its faces. The defence is double, consisting of a rampart of stiff red clay which, as the surrounding soil appears of a different nature, must have been brought from some distance. Below this rampart is a terrace of about twenty yards in breadth, beyond which the side of the hill is perpendicularly scarped and varies from ten to thirty feet high; the principal entrance and the defences for some distance on either side are built of bricks, and on many spots in the interior I observed remains of the same materials. The fort seems to be composed of three sides, the steepness of the hill at its north face precluding the necessity of any other work."

"Raja Bishmukh's fort stands about sixteen miles to the north-west of Sadiya, and occupies the high table-land at the foot of the hills between the rivers Dikrang and Dibang. It was visited in the year 1848 by Colonel S. F. Hannay, who thus describes it:—'A high rampart of earth crossed the opening towards the plain. Crowning this, we found ourselves amongst bricks scattered about, with a low wall running along the top of the outer edge, which on nearer inspection proved to be an upper parapet overtopping the rampart, the lower portion showing a solid facing of hewn sandstone blocks of more or less height according to the nature of the ground. This rampart ran in a direction about north-west, and in the distance of a quarter of a mile which we inspected, the brick wall continued on the left, sometimes to the height of five feet, loop-holed in several places apparently for arrows and spears, but more frequently in a very dilapidated state from huge trees having taken root in the rampart, and wild animals passing over it. At the distance of a quarter of a mile, a spur of the table land touched upon the rampart and a brick wall crossed it, ascending the spur apparently to the level land above. Here also must have been a gateway or passage of some kind through the cross—wall, but all had

*Vol. XLV, Page 510, May 1867

disappeared in the heaps of bricks lying about. The wall and rampart, however, still continued to the north-west; but having little local information about the place, and being limited in our researches to that day only, it was considered advisable to return. We therefore confined our further observations to that portion of the works we had passed."

"The table-land to the east being naturally strong from the steepness and difficulty of ascent, required no artificial defences, and from the circumstance of the rampart and wall abutting upon the southernmost point of the table-land, it appeared to me evident that those works to their utmost extent westward—probably to the banks of the Dibang about four miles distant,—were merely intended to enclose the table-land at the foot of the hills, and thus form a place of refuge in time of invasion. No buildings are said to be on this hill fortification; but the Mishmis (the hill tribe occupying the adjacent heights) who describe it as of great extent, speak also of a gateway by a hill stream, where there are fragments of large earthenware vessels of various shapes, and the truth of this is confirmed by the numerous debris of earthen vessels found in the bed of the Dikrang river, of a description totally different from the manufactures of the present day in Assam, being more (as regards quality of material and shape) like that of the earthenware of Gangetic India."

"Although bearing the appearance of great age, for in many places the wall has bulged and fallen down, it has evidently been well and substantially built; the sandstone blocks, varying from 10 to 8 inches thick, a foot broad, and 20 inches long, are rudely but evenly chiselled with the point, and they are closely and regularly laid. The bricks are first-rate, varying in size from 8×5 to 6×4 inches, and from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches thick, and the parapet wall formed of them about 4 or $4\frac{1}{2}$ feet in thickness. The sandstone facing of the rampart may be somewhat less, but the whole masonry work is laid without cement or fastening of any kind; immediately over the sandstone are two rows of bricks, and over these, two others projecting so as to form a rude cornice, which gives it an appearance of neatness. The rows or layers of masonry (sandstone) alternate from 5 to 7 and 9 from the bottom of the wall outside, a difference which may be accounted for either from

the natural steepness of the ground in some parts requiring less wall, or from the earth having accummulated against the wall from natural causes during a long period of time. Close to where the wall abuts against the table-land, there is a turn at right angles, given evidently to form a flank defence."

In 1873, four tanks were discovered in the same locality, one almost as large as the famous tank at Sibsagar, and the brick foundations of what must once have been extensive buildings.

The copper temple, at which the human sacrifices, described in the article on the Chutiyas, took place, stands on the banks of the Dhol river to the east of Sadiya. It is a small stone building with walls $4\frac{1}{2}$ feet thick, and an interior only 8 feet square, which stands in a large enclosure surrounded by a brick wall. The roof was originally sheathed with copper, most of which has now been removed.

There are the ruins of a small temple near the Phulbari village in the Narayanpur mauza. It is approached through a masonry arch, and consists of a small square building about 20 feet high, which is now in a very ruinous condition. Along the front there is a frieze of tiles, and in the neighbouring jungle are to be seen the stone images of several gods. The temple is said to have been erected in the days of Rajeswar Singh, and to have been destroyed by the Mataks. There are also the remains of three small temples near Sisi opposite Dibrugarh, but, like the building at Phulbari, they are in a very ruinous condition. In the valley of the Barpani, about two days journey

from the Harmati garden into the Dafla country, there are the ruins of an old city. Two brick walls, about one mile in length, run parallel to one another at a distance of about a mile apart. The site is covered with jungle and has never been properly explored.

CHRONOLOGICAL TABLE.

AHOM KINGS.

A. D.

1228 Sukapha.

1268 Sutenpha

1281 Subinpha.

1293 Sukangpha.

1332 Sukampha.

1364 Sutupha-treacherously killed by Chutiyas at a regatta held on the Safrai river to celebrate a cessation of hostilities between the two tribes.

1376-1380 Interregnum.

1380 Sukemthi, a weak and tyrannical prince, assassinated by his ministers.

1389-1398 Interregnum.

1398 Sudangpha.

1407 Siyangpha.

1422 Suphukpha.

1439 Susingpha-defeats Nagas.

1488 Suhangpha-defeated by Kacharis in 1490, and murdered by a convict.

1493 Supimpha, a cruel prince assassinated by his ministers.

1497 Suhunmung alias Sarga Narayan or Dihingia Raja. Conquers Chutiyas and annexes their kingdom 1523. Repulses two Muhammadan invasions, the second being that under Turbuk in 1532, who was routed near the Bhareli river. Kills Kachari king and sacks Dimapur his capital in 1536. Assassinated 1539.

1539 Sukhenmung-built Gargaon (Nazira).

1552 Sukampha.

1611 Suchengpha or Pratap Singh. Assists Bali Narayan against Musalmans, besieges Hajo but is driven back. Bar Nadi accepted as frontier between Muhammadans and Ahoms in 1637.

1649 Surumpha. Deposed.

1652 Suchingpha. Deposed.

1654 Sutumla or Jaiyadwaj Singh. Ahoms occupy Goalpara 1658. Driven back by Mir Jumla who enters Gargaon 1661.

1663 Chakradwaj. Ahoms reoccupy Gauhaty in 1667.

A. D.

1204 Baktiar Khilji invades Assam.

1220 Ghiyasud-din-Bahadur Shah advances to Sadiya but is defeated.

1256 Iktiyarud-din Yuzbak Tughril Khan invades the Brahmaputra Valley but is ultimately defeated.

1337 Muhammed Shah sends a force "of 100,000 horsemen" into Assam, all of whom perish.

KOCH KINGS.

1509-1534 Viswa Singh—Founds Koch kingdom, advances against Ahoms but was apparently defeated.

1534-1584 Nar Narayan-conquers Ahoms and occupies Gargaon circa 1563 A. D. Subdues Rajas of Cachar, Jaintia, Manipur Tipperah and Sylhet. Kala Pahar, invades Assam in 1553 and destroys temples at Kamakhya and Hajo.

1581-1593 Raghu Rai obtains share of Koch kingdom east of Sankosh.

1593-1614 Parikshit-builds North Gauhati, quarrels with his cousin Lakshmi Narayan, calls in Muhammadans to his aid.

1614-1637 Bali Narayan—Invokes aid of Ahoms against Muhammadans. From this date the Koch kings cease to be of any political importance

CHRONOLOGICAL TABLE.—*Continued.*

A. D.	AHOM KINGS.
1670	Adayaditya Singh, assassinated.
1672	Suklumpha-poisoned. Musalmans reoccupy Gauhati.
1674	Suhung-assassinated.
1674	Teenkungiya-assassinated.
1674	Suhungpha-blinded and murdered.
1677	Sudinpha-assassinated.
1679	Sulekpha (Lora Raja) assassinated.
1681	Gadadhar Singh-Ahoms recover possession of Gauhati.
1695	Rudra Singh—founds Rangpur, defeats Kachari and Jaintia Rajas, publicly adopts Hinduism as his religion. This period represents the height of the Ahom power. Dies at Gauhati.
1714	Sib Singh—a weak prince who resigned in favour of his wives. Excavated tank at Sibsagar.
1744	Pramatta Singh.
1751	Rajeswar Singh. Decline of Ahom power.
1769	Lakshmi Singh. Out-break of Moamaria rebellion—king deposed for a time, but subsequently reinstated.
1780	Gaurinath Singh. Driven to Gauhati by Moamarias. Reinstated by Captain Welsh in 1792, who is however, recalled in 1794. Krishna Narayan, Darrang Raja, asserts his independence in 1792, but is defeated by Captain Welsh.
1795	Kamaleswar Singh. Deposes Krishna Narayan.
1809	Chandra Kanta Singh—Burmese are invited into Assam by Bor Phukan. Deposed 1816.
1816	Purandar Singh—Burmese again enter Assam. Deposed 1818.
1818	Chandra Kanta Singh-Burmese decline to leave-Chandra Kanta driven from Assam in 1820.
1824	War declared between British and Burmese Governments.
1825	Rangpur taken.
1826	Treaty of Yandaboo by which Assam was ceded to the East India Company.

CHAPTER IV.
POPULATION.

Area and Density—Towns and Villages—Enormous growth of population—Distribution by subdivisions—Migration—Sex and Marriage—Infirmities—Language—Castes and Tribes—Religions—Mahapurushiyas—Moamarias—Sattras and Gosains—Occupations—Amusements and Festivals—The Bihus—Marriage Customs.

Area and density. The district covers an area of 4,529* square miles within the Inner Line, and, viewed as a whole, is very sparsely peopled, as there were in 1901, only 82 persons to the square mile. There are, however, wide variations from this mean. In the Dibrugarh tahsil†, which covered an area of 265 square miles, there were 314 people to the square mile, and in the Polonga and Chabua mauzas which adjoin it on the east, the density was as much as 377. East of Dibrugarh, along the Sadiya road as far as Saikhoa, a great portion of the land has been planted out with tea or other crops, but in the south, there are wide stretches of forest and waste. The Khowang and Jaipur mauzas, which march with the Sibsagar district, had 84 persons to the square mile, but then come Tipling with 27 and Makum with 38, while east of Makum is the huge Buri Dihing

* Revised figures of area have been received from the Survey Department They differ from those furnished at the time of the census of 1901.

† The Dibrugarh tahsil was resolved in 1904 into the following mauzahs :—Dibrugarh, Lahoal, Mankatta, and Konikar, Jamira and Larua.

mauza in which there is hardly any population. North of the Brahmaputra, population is very sparse, and it is only near the subdivisional headquarters station, and the Nakari mauza immediately to the north, that it exceeded 100 to the square mile. In the Dhemaji and Sisi mauzas, west of Dibrugarh, which covered an area of 340 square miles, the average density was only 31. Table III shows the area of each mauza, the density in 1901, and the growth of population in the last intercensal period.

Towns and villages.

Lakhimpur contains one town, Dibrugarh, and 1,123 villages. These villages are not, however, well defined units, clusters of huts which stand out clearly in the centre of fields tilled by their inhabitants. Rice, the staple crop, is grown in wide plains, dotted over with clumps of bamboos and fruit trees in which are buried the houses of the cultivators. It is groves and not villages that the traveller sees, when riding through the more densely populated portions of the district, and not a house can usually be discerned till he has penetrated this jungle of plantains, betelnut trees, and bamboos. There is generally no dearth of building sites, there are no communal lands, and there is nothing to keep the population together. It is difficult to tell where one village ends and another begins, or to which of the larger clumps of trees should be assigned the smaller clumps which are freely dotted about amongst the rice fields. The result is that a village, as defined for census purposes, is a very arbitrary unit, and the statistics showing their size are of little practical importance.

Taking them, however, for what they are worth, it appears that nine tenths of the villages are small hamlets with less than 500 inhabitants.

Growth of population since 1847.

The first census of Lakhimpur is said to have been taken in 1847-48, and disclosed a population of 81,917. The methods employed can hardly have been exhaustive, but the accuracy of the enumeration was to some extent confirmed by the census of 1852-53, which gave a total of 85,296 persons.* For twenty years no further attempt was made to count the people, but in 1872, Lakhimpur was included in the general census taken in that year. The enumeration was far from being a synchronous one, the operations extended from November 1871 to the following February, and it is probable that part of the large increase that occured in the next nine years was due to under estimation in 1872.

The following table shows the population recorded at the last four enumerations, and the rate of increase in each intercensal period.

	1872.	1881.	1891.	1901.
Population	121,267	179,893	254,053	371,396
Percentage of increase ...	...	+ 48	+ 41	+ 46

In marked contrast with most of the other districts of Assam, Lakhimpur is an instance of extraordinary and continuous development. Within 29 years the population more than trebled itself. This enormous increase was mainly due to the importation of large numbers of foreigners, but there was also a satisfactory development amongst the indigenous population. Natu-

* Report on the Province of Assam by A. J. Moffatt Mills, Lakhimpur, Appendix A.—Calcutta. 1854.

ral growth is perhaps best measured by the increase in the number of those born and censused in the district, for in the absence of much emigration, and there is comparatively little emigration from Lakhimpur, this standard affords a fair test of the proportion of births and deaths, and of the general fecundity of the area under consideration. Where, however, the proportion of emigrants is large, a considerable number of the babies that are born are the children of mothers who have moved from other places into the district. The increase in those born and censused in Lakhimpur is thus appreciably larger than the increase amongst the indigenous inhabitants. It is difficult to measure this special development with scientific accuracy, as the indigenous inhabitant is a somewhat elusive entity, but the best results are obtained from an examination of the language tables. The following statement shows the percentage of increase that took place during the two last intercensal periods (*a*) amongst those born and censused in the district, and (*b*) amongst the speakers of indigenous languages.*

	Percentage of increase amongst those born and censused in district.	Ditto amongst those using indigenous languages.
1881-1891 ...	+ 22	+ 9
1891-1901 ...	+ 24	+ 16

Regarded from every point of view the growth of population in Lakhimpur is eminently satisfactory. The importation of great quantities of coolies has rendered

* Indigenous languages have been taken to be Assamese, Garo, Bodo, Lalung and Chutiya Miri has been excluded as there was a considerable influx of Miris from the hills between 1881 and 1901.

it possible to develop the very considerable natural resources of the district. Many of these immigrants have settled down, and have carried out the biblical injunction to replenish the land; but in addition to the growth amongst these settlers, there has been a substantial increase in the indigenous population. This increase is the more acceptable, in that, in the four lower districts of the Assam Valley, there was little or no natural growth amongst the natives of the country between 1872 and 1901.

Distribution by sub-divisions.

More than three-fourths of the total population live in the Dibrugarh or sadr subdivision, and the development in this portion of the district has been phenomenally rapid. It contains many extremely prosperous tea gardens, Dibrugarh itself is a thriving little town, and the oil wells, railway, and coal mines afford occupation to a considerable number of labourers and artizans. Within the short space of twenty years the population rose from 126,000 to 287,000, and it is hardly necessary to add that the greater part of this enormous increase was due to immigration. The extent to which this portion of the district has been colonized from other parts of India is illustrated by the fact that in 1901, no less than 47 per cent. of the inhabitants had been born outside the Province; while many of the persons returned as "born in Lakhimpur," must obviously have been of foreign parentage. Although, in places, the population is fairly dense, there are still wide tracts of land available for settlement, and in the subdivision as a whole, there were, in 1901, only 94 persons to the square mile.

North Lakhimpur is not so progressive as the country that lies south of the river. It is generally supposed to be rather unhealthy, its soil is not particularly suitable for tea, communications are defective, and, except that there is an abundance of waste land, the conditions are not such as would normally conduce to a rapid rate of progress. The great advance made during the past 20 years is the more satisfactory, and it must be largely due to natural growth, as in 1901, only 21 per cent. of the people censused in the subdivision had been born outside the Province. The density in that year was only 72 to the square mile, so that there is no fear of the increase of the people being checked by the straitness of their boundaries. The following statement shows the population of each subdivision in 1901, and the percentage of increase at each of the two last enumerations.

		Percentage of increase.	
	Population 1901.	1891-1901.	1881-1891.
Dibrugarh ...	286,572	+50·3	+51·1
North Lakhimpur ...	84 824	+33·7	+18·0

Migration. 152,856 persons, or 41 per cent. of the population of the district in 1901, had been born in Provinces or States other than Assam. The immense majority of these persons were coolies, and about 72 per cent. of the total came from the neighbouring Province of Bengal. Comparatively few of these people were, however, actually Bengalis, and two-thirds of the immigrants from Bengal came from the division of Chota Nagpur, which supplies Assam with the healthiest but most costly of her labourers. Coolies also came in consider-

able numbers from the Central Provinces, and the United Provinces of Agra and Oudh, and there were over 2,000 from Madras. There were more natives of Rajputana censused in Lakhimpur than in any other district of the Province, these shrewd Marwari merchants reaping a rich harvest from the numerous tea gardens, and from the exploitation of the wholesale trade of this flourishing district. Other immigrants include Punjabi artizans, of whom there were a few hundreds, Kabuli traders from Afghanistan, and Nepalese, of whom there were over 4,000. Many of the latter were serving in the military police battalion, others earn their living as graziers, while others again have settled down to cultivation, sugar-cane being a crop to which they have devoted considerable attention.

As is only natural, Lakhimpur gains largely by inter-district migration, and in 1901, it received 13,552 persons from other districts in the Province, and only gave 3,504 in exchange. Most of the immigrants came from Sibsagar and Kamrup, almost all the latter being persons who had come up to work on tea gardens. Two-thirds of the emigrants went to the neighbouring district of Sibsagar. Further details with regard to immigration will be found in Table V.

Sex.

The deficiency of women has always been very marked in Lakhimpur. At the last three enumerations, the proportion has been lower here than in any other district of the Province, and in 1872, the Cachar Plains was the only area which had a lower record. Between 1881 and 1901, the gross ratio slowly declined from 867 to 862

for every 1,000 males, but this extremely low rate is no doubt partly due to the disturbing effect of immigration. Of the 13,500 persons received from other districts of Assam, no less than 10,000 were males, and the male element is always predominant amongst immigrants from outside the Province. The effect of immigration can, however, be eliminated by calculating the proportion on those born and censused in the district. Even when this is done, there is still a great deficiency of women, the proportion to a 1,000 males at the last three enumerations being,—1881, 957, 1891, 939, and 1901, 951. But the last named figure, after all, was higher than that reported from Sibsagar. The causes which regulate the proportions between the sexes are obscure, but it seems to be the general rule that women in the plains of Assam should be in a minority. Districts like Kamrup and Nowgong, where public health has been particularly bad, and where women have displayed a greater resistant capacity to these unfavourable conditions than the so-called stronger sex, form an exception to this rule.

Marriage. It is satisfactory to know that the deficiency of women is not due to the prevalence of early marriage. The following abstract shows the percentage of Hindu girls under ten, and between ten and fifteen, who have performed the marriage ceremony, and the proportion between fifteen and twenty, who, even according to western ideas, would be considered *aptae viro*, who are still unwed. For the purposes of comparison, the figures for Goalpara have been included, as unfortunately in that district, the idea has gradually gained ground that

social advancement can in some way be obtained by subjecting an immature child to the reponsibilities of matrimony.

Married and Widowed.	Percentage of Hindu Girls.	
	Age.	Age.
	0—10	10—15
Lakhimpur	... 0·8	12·6
Goalpara	... 4·8	62·4

Percentage of Hindu Girls unmarried.	
	Age.
	15—20
Lakhimpur ...	... 44·7
Goalpara ...	... 7·2

For every child-wife or widow under ten in Lakhimpur, there are six in Goalpara, and between ten and fifteen the proportion in the two districts is as five to one. The proportion of women of child-bearing age to the total population is obviously a factor which has much to do with its development. In this respect, Lakhimpur has some advantage, as 165 per mille of the inhabitants are married women between 15 and 40, as compared with 157 per mille in the Province as a whole.

Infirmities. Lakhimpur is fairly free from three out of the four special infirmities selected for record at the census. The proportion of insane persons is very low, while the number of deaf mutes, though 50 per cent. higher than the ratio for the Indian Empire, does not exceed the average for the Province. The proportion of the blind is distinctly below the Provincial and Imperial averages. This comparative immunity from some of the more serious ills of the flesh is largely due to the strength of the immigrant population, as the deaf and

dumb, the blind, and the insane are obviously not likely to leave their homes to seek their fortunes in a foreign country. The proportion of lepers is below the provincial average, but is double that prevailing in the Indian Empire. The following abstract shows, out of 10,000 males, the number afflicted with these four infirmities in 1901. The figures for males only have been given, as concealment is more likely to occur in the case of women, and in their case the figures for leprosy are probably incorrect.

Number of afflicted out of 10,000 Males.

	Lakhimpur.	Assam.	India.
Insane	1	5	3
Deafmute	9	9	6
Blind	7	10	12
Lepers	10	13	5

Language. The extent to which Lakhimpur has been denationalized, and the way in which the indigenous inhabitants have been swamped by hordes of immigrants, can be judged from the fact that Assamese was only returned by 39 per cent. of the population in 1901, as their customary form of speech. Six per cent. spoke Miri, and one per cent. Bodo or plains Kachari, but no less than 53 per cent. returned languages foreign to the Province. Twenty-one per cent. professed to speak Bengali, but it is doubtful whether, to an Assamese, Bengali means anything more than a foreign tongue, and this term probably included many forms of speech which would have been by no means understanded of the people of Nadia. Fourteen per cent. returned Hindi, 6 per cent. Munda, and 2 per cent. Santali. Assamese is described by

Mr. Grierson as the sister not the daughter of Bengali.* It comes from Bihar through northern Bengal and not from Bengal proper, the plural and the feminine gender are formed in a different way from that in use in Bengali, and there is a considerable difference in the conjugation of the verb, in the idiom, the syntax and even in the vocabulary. The pronunciation is also different, the Bengali sh. being converted into h by the Assamese, and ch into s. Miri is classified as a Thibeto-Burman language and is said to be closely akin to Dafla, which is spoken in the hills a little to the west. The foreign languages need hardly be described in a gazetteer of Lakhimpur.

Caste and tribes.

It has already been shewn by the tests of language and birth place that Lakhimpur is ethnically ceasing to be a portion of Assam, and that the indigenous inhabitants are gradually sinking into a position of marked numerical inferiority. More than half the total population of the district belong to foreign castes, the ones most strongly represented being the Mundas, Santals, Bhuiyas, Bhumij, and Oraons. The history of these people and their customs will be found in Mr. Risley's Tribes and Castes of Bengal. The castes of the United Provinces are described in the admirable work by Mr. Crooke, so that any reference to these foreigners would hardly be in place in the present work. Table V gives details by sex and subdivisions of all castes which had more than 5,000 representatives in the district in 1901, and, in the following pages, some account is

* Report on census of India 1901, vol. I, p. 324.

given of those of them which are peculiar to Assam. As is only to be expected from the history of the district, the Ahoms form a large proportion, nearly one third, of the indigenous inhabitants. The Chutiyas are fairly numerous, though the bulk of the caste are living in Sibsagar, and Miris, Kacharis, and Doms or Nadiyals are found in considerable numbers. Kalitas and Kewats on the other hand, the typical castes of lower Assam, are comparatively scarce, and Brahmans and Kayasthas are naturally not numerous. The European population is considerable, and, in 1901, consisted of 350 males and 119 females; a community considerably larger than that in any of the indigo districts in the Patna division, with the exception of Patna itself. Nearly all the Europeans were living in the sadr subdivision.

Ahoms.
Males 29,703
Females 29,347

The Ahoms are the descendents of the Shan tribe who entered Assam in the thirteenth century, and gradually extended their sway over the whole of the Brahmaputra Valley. They are divided into three sections, the Chamuas or gentry, the Kheluas or functional sections, and the Meluas or servants of the royal family. These sections are not endogamous, though there is a natural tendency for men to take wives from families in their own rank of life, and inter-marriage between certain families such as the Handikoi and the Pakimara is prohibited, for reasons which are not very clear. The Ahoms still possess a sturdier physique than the ordinary Assamese, and the Muhammadan chronicler of Mir Jumla's invasion describes them as "strong, quarrelsome, and bold." The complexion is fair, the cheek bones high,

and the face unusually broad. Practically all the Ahoms are now, in name at any rate, Hindus, but their new religion sits lightly on them, and the lower orders still bury their dead. As amongst the other humbler Assamese castes, cohabitation often takes place after a feast has been given to the villagers, and there is nothing in the nature of a religious ceremony. The more respectable form is the *chaklong*, which consists in the interchange of the *temi* and *katari*, the box in which betel nut is carried and the knife with which it is cut, the tying of the nuptial knot, and a feast to the friends and relations. A hole is then cut in the corner of the house through which the bride is removed.

A woman once married by the "*chaklong*" ceremony cannot be re-married by the same rite, though she can take a second husband by the simpler form of marriage which is known as *gur pithaguri*. Divorce is recognised, and the parties can marry again. Agriculture is the staple occupation of the caste. Their social position is a somewhat peculiar one. The fact that, prior to our occupation of the country, they were the ruling race, obtains for them a considerable measure of respect; but the recency of their conversion to Hinduism necessitates a very low place in the Brahmanical order, and Brahmans will not, as a rule, take water from their hands.

Brahmans
Males 2,794
Females 1,014

In the days of native rule, Lakhimpur was too remote and wild a tract to have many attractions for the priestly caste, and the majority of the Brahmans have migrated to the district in comparatively recent times. The

marked disproportion between the sexes clearly shows that many of this caste are foreigners.

Chutiyas Males 9,318 Females 8,230

The Chutiyas, like the Koch and Ahoms, are one of the race castes of Assam. The caste is divided into four subdivisions, Hindu, Ahom, Deori, and Borahi. The latter, as their name implies, are still unconverted and eat pork, but the number of Borahi Chutiyas is very small. The Deori Chutiya are the old priestly caste, and are described as follows in the census report of 1901:—

"Their original home was on the banks of the Kundil river east of Sadiya, but when the Ahom power began to decline, they were harried by the hill tribes in the neighbourhood, and at the beginning of the century they migrated to North Lakhimpur, and from there moved to the Majuli, the Dikrang river, Sissi Mukh, and the Baligao mauza in Jorhat. The Mongolian type is much more strongly marked in them than in the ordinary Chutiya, and they might easily be mistaken for Miris. They keep pigs and fowls, but their most distinguishing characteristic is the enormous size of the houses in which they dwell. These houses are built on *changs*, and are enlarged from time to time to make room for the increasing size of the family. There are frequently as many as sixty persons living in one long barrack, and the Chutiyas themselves say, that there are sometimes double this number living under one roof. The Deori Chutiyas on the Majuli profess to be Hindus, but beef is the only article of food from which they abstain, and it is said that all that they could remember of the instructions of their Gosain was that were to pray to God, and keep their instructions secret; and it was possibly with the idea of avoiding any risk of indiscretion that they had so carefully forgotten all that they had been told. Their temples are copies in wood and thatch of the famous copper temple at Sadiya, which was at one time a centre of worship for all the hill tribes on the north-east frontier, but has long been in ruins. These models are small buildings about eight feet square raised on high bamboos, and not unlike pigeon houses in appearance, standing in enclosures, into which no one but the temple officials are allowed to enter. In the principal village on the Majuli, a copper roof is being placed on the model to render the resemblance more complete. Mr. Brown, who was at one time Assistant Commis-

sioner in North Lakhimpur, reports that the Deoris attach great importance to their own religion, but that a knowledge of its mysteries is apparently confined to the priests and the older men. There are four priests attached to each khel, the Bor and Saru Deori and the Bor and Saru Bharali. The two Deoris alone are entitled to enter the temple, and the Bharalis, as their name implies, are mainly concerned with the temporalities of the goddess. The chief gods are three—Gerasi Geri (Assamese "Buraburi") worshipped by the Debongi khel; Pishadema (Assamese "Boliya hemata,") the elder son, worshipped by the Tengapaniya khel; and Peshasi (the daughter), who is also known as Tameshari Mai (the mother of the copper temple), and Kechakhati (the eater of raw flesh). The latter name is given in memory of the annual human sacrifice which in former times used to be offerred to the goddess, the victim being provided by the Ahom Raja. This abomination was discontinued during the reign of Gaurinath Singh, and according to the Deoris the down fall of the Ahoms was largely due to their neglect of this religious rite.

The following interesting account of the human sacrifices offered near Sadiya is extracted from a note left by Lieutenant Dalton in the library. of the Nowgong office :—

The human sacrifices of the Chutiyas.

The chief and oldest of the shrines was the Tamar Ghar, or copper temple, which still exists in ruins and was lately visited by Captain Vetch. It is described as a small stone building nearly square, built without cement, the stones joined by iron pins not clamped. The roof was of copper, but it has fallen in, and now lies there. The interior is eight feet square. The whole is enclosed within a brick wall 130 feet by 200. Near the grand entrance in the western wall is a small stone tripod. Here hum-man sacrifices were yearly offered till a very recent date, but latterly the Ahom kings gave for the purpose malefactors who had been sentenced to capital punishment. Suitable victims of this description were not, however, always to be obtained, and then a particular khel or tribe of the king's subjects was bound to provide one, for which they had certain privileges and immunities accorded them, such as being exempted from the payment of ferry and market duties; and were thence called *Sarh*, or free. For it was necessary that, the victims to be immolated, should be of pure caste and perfect form; the slightest blemish or mutilation, even the boring of an ear, rendering them unfit to be offered to

the Gosaini or goddess. Brahmans and members of the royal family were exempted as a privilege; Doms, Haris, Musalmans, and women were excluded as unfit. For some time preceding the sacrifice, the victim to be immolated was detained at the temple, where he fared sumptuously, till in sufficiently plump condition to suit the supposed taste of the Gosaini. On the day appointed he was led forth magnificently attired, and decorated with gold and silver ornaments, to be shown to the multitude that assembled on the occasion; then withdrawn, and led by a private path trodden only by the officiating priests and their victim to the brink of a deep pit, where he was divested of his fineries and decapitated, so that the body fell into the pit. The head was added to a heap of ghastly skulls that were piled in view of the shrine. These sacrifices appear to have continued till the subversion of the Ahom Government by the Burmese, when the Deoris abandoned their ancient possessions in the vicinity of the copper temple, to the fearful rites of which they had for upwards of six centuries administered, with the slaughter by their own account of some six hundred human victims."

The Ahom Chutiyas have for some generations been converts to Hinduism, but in the social scale they rank below the Hindu Chutiya, and their presence in a house is said to debar a Brahman from drinking water there. The Ahoms and Hindu Chutiyas can smoke, but cannot eat together, and, in theory, cannot intermarry. A member of the Ahom section can, however, obtain a Hindu Chutiya girl, if he is willing to pay a slightly higher price for her, but the bride sinks to the status of her husband. Hindu Chutiyas are sometimes united by the *hompura* ceremony, while the *chaklong* rite, which is the Ahom form of marriage, is in vogue amongst the Ahom Chutiyas. The Chutiyas are, however, far from strict in their views on matrimonial matters, and one native gentleman reports that 50 per cent. of the so called married couples have performed no ceremony at all, and that a girl sometimes changes her

husband nine or ten times. The social position of the caste is low, and almost all of them are petty cultivators. They burn their dead and perform the *sradh* ceremony at the expiry of a month. Brahmans of inferior social standing act as their priests.

Kacharis Males 13,711 Female 11,452

The Kacharis or Bara, (mispronounced Bodo) as they call themselves, belong to the great Bodo tribe, which is found, not only in the Brahmaputra Valley, but in the Garo Hills, and in Hill Tippera south of the Surma Valley. It is generally supposed that they are a section of the Indo-Chinese race, whose original habitat was somewhere between the upper waters of the Yang-tse-kiang and the Hoang ho, and that they gradually spread in successive waves of immigration over the greater part of what is now the Province of Assam. A prayer, which is still in use amongst the Dimasa* in the North Cachar Hills, lends some support to this view. It refers to a huge pepul tree growing near the confluence of the Dilao (Brahmaputra) and the Sagi. There the Kacharis were born and increased greatly in numbers, and thence they travelled by land and water till they reached Nilachal, the hill near Gauhati, on which the temple of Kamakhya stands. From Gauhati they migrated to Halali, and finally settled in Dimapur. The inscriptions recorded on copper plates in the tenth and eleventh centuries A. D. refer to the conquest of Kamarupa by a foreign dynasty, which was subsequently replaced by a king of the line of Narak.†

* The Dimasa are the Kacharis of North Cachar whose capital was originally at Dimapur.

† *Vide* J. A. S. B. Vol. LXVII Part I No. I, 1898 page 99.

It is possible that these invaders were Kacharis, and it would be natural enough for them to retreat towards the Dhansiri valley, on their expulsion from Gauhati.

The Kachari kingdom was one of the strongest powers with which the Ahoms were confronted when they entered the valley of the Brahmaputra. Their capital was located at Dimapur on the Dhansiri river, and at one time they were in possession of the western part of Sibsagar, and the greater part of the Nowgong district. Dimapur was sacked by the Ahoms in 1536, and the Kachari king was compelled to move his capital to Maibang. Subsequently they migrated to the plains of Cachar, and the last representative of the royal line was assassinated there in 1830. It seems, however, doubtful whether the Kacharis who live on the north bank of the Brahmaputra were ever in any way connected with the king of Dimapur. The one tribe style themselves Bara, the other Dimasa, and though both use languages of Bodo origin, the difference between plains Kachari and Dimasa is greater than that between French and Spanish. The two tribes sprang, no doubt, from the same stock, but there is no evidence to show that they were ever united by the tie of a common nationality, or that the Kacharis of Darrang were more closely connected with the Kacharis of North Cachar, than are the Rabhas or Garos.

The following legend is prevalent amongst the Dimasa of North Cachar. It would account for the separation of the Bodo and Dimasa, but no traces of the story have been found amongst the Kacharis of Darrang. Long ago

the Dimasa fought against a powerful tribe and were beaten in a pitched battle. They were compelled to give ground, but after a time, further retreat was barred by a wide and deep river. In despair, the king resolved to fight again on the following day, but in the night a god appeared to him, and told him that the next morning the army could cross the river if they entered it at a spot where they saw a heron standing on the bank. No one, however, was to look back while the movement was in progress. The dream proved true. A heron was seen standing on the bank, and the king and a great portion of his people crossed in safety. A man then turned to see whether his son was following, when the waters suddenly rose and swept away those who were in the river bed, and prevented the others from crossing. The Dimasa were those who succeeded in reaching the further bank in safety.

In Central and Lower Assam the great bulk of the Kacharis have remained faithful to their tribal form of worship, and on conversion, are received into the ranks of the Koch. This is not the case in Lakhimpur, where nearly all the Kacharis are, in name at any rate, Hindus, and live like other humble Hindu castes. Most of them are settled in the centre of the district not far from Dibrugarh.

Kalita. Males 3,310 Females 2,102

The following description of the Kalitas is reproduced from the Report on the Census of 1901.

"There is much uncertainty as to the origin of this caste. The popular explanation is, that Kalitas are Kshhatriyas, who fleeing from the wrath of Parasu Ram, concealed their caste and their persons in the jungles of Assam, and were thus called

Kul-lupta. Other theories are that they are Kayasthas degraded for having taken to cultivation, an explanation which in itself seems somewhat improbable, and is not supported, as far as I am aware, by any evidence; or that they are the old priestly caste of the Bodo tribe. The latter theory can hardly be said to account for their origin, and though it is possible that Kalitas may have originally acted as priests, this fact throws little or no light on the problem of what the Kalitas are. The most plausible suggestion is, that they are the remains of an Aryan colony, who settled in Assam, at a time when the functional castes were still unknown in Bengal, and that the word "Kalita" was originally applied to all Aryans who were not Brahmans.

The Kalitas are divided into two main sub-divisions, Bar and Saru, and into a number of professional subcastes. In Upper Assam Bar Kalitas are said to decline to use the plough, though they occasionally work with the spade, but there is no such restriction in Kamrup, where the great bulk of the caste is found. Cultivation is, in fact, the traditional occupation of the caste, and they even consent to work as coolies on tea gardens. The usual procedure for a Kalita who has succeeded in rising above the necessity for manual labour, and is no longer compelled to follow the plough, is to call himself a Kaist or Kayastha. Two explanations are given of the origin of the Saru Kalita—one, that he is the offspring of persons who for three generations back have not been united by the "*hom*" ceremony, the other that he is the child of a Bar Kalita and a Kewat women. Whether the Bar Kalita can inter-marry with, and eat *kachchi* with the Saru Kalita seems open to question, and the practice apparently varies in different districts; but there seems to be no doubt that the functional sub-divisions of the caste are debarred from the privilege of close intercourse with the Bar Kalita. These sub-divisions are the Mali, Sonari, Kamar, Kumhar, Napit, Nat, Suri, and Dhoba. The first two inter-marry with the Saru Kalita, and also with the Kamar Kalita. The last four groups are endogamous. All these functional groups are to some extent looked down upon, probably because followers of these professions, who were not true Kalitas, have occasionally succeeded in obtaining admission within their rank; but the goldsmiths, from their wealth, have secured a good position in society. Kalitas have a good Brahman for their priest, and their water is taken by every caste; a fact which no doubt explains the high value attached to Kalita slaves in the time of the Assam Rajas, when two Koches could be purchased for the price of a single Kalita, though the Koch is generally the hardier and stronger man of the two.

Early marriage is common in Goalpara, but not in Assam proper, except amongst the upper sections of the caste. They take, in fact, a liberal view of the relations between the sexes, and cohabitation is the essential part of marriage. Well-to-do Kalitas are invariably united by the *hompura* rite and employ a Brahman. The poorer people often content themselves with the *agchauldia* or *juron* ceremonies, which consist of a feast to the villagers and a public acknowledgment of the position of the bride. Some authorities hold that this, though a valid form of marriage for the lower Assamese castes, is not sufficient for the Kalita. They regard the *hompura* rite as the one essential ceremony of purification. But it can be performed after cohabitation has begun, and sometimes takes place after the death of the husband. An unmarried girl, who becomes pregnant, does not forfeit her position in the society, unless her lover is of lower caste

Many of the Kayasthas are foreigners, and most of them earn their living by clerical work of one sort or another. Kalitas, who have risen above the necessity of manual labour, frequently describe themselves as Kayasthas.

Kayastha.
Males 1,046
Females 698

The Kewats are a respectable Hindu caste, from whose hands Brahmans will take water, and who according to Assamese ideas rank immediately after the Kalita. These remarks only hold good, however, of the Halwa or cultivating Kewats. The Jaliya or

Kewats
Males 2,565
Females 2,495

fishing subdivision of the caste occupy a very humble position in the social scale, and are considered little better than Nadiyals. The two sections of the caste have nothing whatever in common, except the name Kewat or Kaibartta, but the number of Jaliya Kewats is comparatively small. The ordinary occupation of the caste is agriculture, but a few of them have succeeded in reaching that desirable position in which the pen takes the place of the ploughshare as a means of livelihood. A respectable Brahman acts as their priest.

Miris
Males 12,980
Females 12,631

The Miris, or as they style themselves, Mishing, were originally settled in the hills to the north of Lakhimpur between the Dafla and the Abor territory. They are thought to be members of the Thibeto-Burman family, and the Chutiya Miris claim kinship with the Chutiya. According to their own account, they descended from the hills with the Chutiyas, when first they conquered Lakhimpur, and retired again with them into their mountain fastnesses, when they were finally defeated by the Ahoms in the sixteenth century. On the advent of the British, the Miris again began to settle in the plains, a process which has been in steady progress ever since. Their countenances are of a distinctly Mongolian type, but their appearance is by no means unpleasing. They are strongly built, with finely developed limbs, and their complexions often have a distinctly ruddy hue. They are cleaner in their persons than many of the Tibeto-Burman tribes, and the more civilized amongst them

fully appreciate the advantages of the bath. The Miris are divided into two main endogamous septs, the Barogams and the Dorgams, which are again subdivided into a large number of minor groups. The Chutiya Miris give the names of these groups as the Chutiya and Doityal who intermarry, the Samaguriya who are endogamous, and the Saiengia, Aiengia, Moengia, Dombugiyal and Lassongoniya who intermarry with one another. These names are said to be derived from the different duars through which the different clans descended from the hills ,and it is doubtful whether they correspond to any distinctions of genuine importance. In the plains, the Miris always live near running water. Their dwellings are built on piles, and are sometimes as much as forty yards in length, and contain from twenty to thirty inmates. Pigs and fowls scratch about beneath the houses, which are usually built in two long rows, and differ from those of the Assamese in having no fruit trees or gardens round them. They support themselves by agriculture, and raise crops of summer rice, mustard, millet, pulse, and sweet potatoes. Though more than half the Miris of Lakhimpur describe themselves as Hindus, they have liberal notions with regard to diet, and eat pork and drink rice beer. Buffalo flesh is not eaten by the Chutiya Miris. Their marriages are somewhat costly affairs, and entail a considerable expenditure upon food, which is borne by the families of the contracting parties. Sexual intercourse before marriage is not regarded with much disfavour, but, if the bride is unable to swear to her

virginity, she has to content herself with a comparatively quiet wedding. Traces of polyandry are to be found in the fact that adultery with a member of the husband's family is considered less heinous than if the offence is committed outside the clan. The general rule for adultery in the plains is that the corespondent should pay twice the cost of the wedding ceremony, after which he is allowed to take his mistress openly to his own house. A similar practice is reported from the hills, but, if the gay Lothario is unable to make the necessary reparation, the guilty couple are tied face to face, pierced with a bamboo stake, and thrown into the river. The bodies of these unfortunate lovers are not unfrequently brought down by the Subansiri, when the river rises in the rains. The dead are usually buried, and the funeral ceremonies include a substantial feast. The Miri religion is of the ordinary animistic type. It's principal feature is the propitiation of malignant spirits likely to do harm. They believe in the immortality of the soul, but do not attempt to dogmatise on the subject, and are somewhat impressed by the fact that the dead never return to this world.

The Nadiyals Males 8,251 Females 6,165

The Doms, or, as they prefer to call themselves, Nadiyals, are the boating and fishing caste of Assam. They are anxious to assume the name Jaliya Kaibartta, but the Kaibarttas are unquestionably a different caste, though their manners and customs do not differ materially from those of the Assamese Nadiyals, except in the following particular. The Kaibarttas decline to use the *ghokata* net, and in theory only sell

their fish on the river's bank, within a paddle's throw of the boat, whereas the Nadiyals regularly take their catch to market. The Nadiyals are probably decended from the aboriginal race of Doms, the ruins of whose forts are still to be seen in India, but migrated to Assam before the Dom caste had been assigned the degrading functions now performed by them in Bengal. They are cleanly in their persons, and particular in their observance of the dictates of the Hindu religion, and account for the objectionable expression "Dom," which undoubtedly they have borne for centuries, by saying, that they were the last of the Assamese to be converted from Buddhism. They are darker in complexion than most of the Assamese, but have a good physique, and by no means uncomely faces. Their women are most prolific, and the Dom villages are full of fat brown babies. They rank very low in the social scale, and, according to Assamese ideas, are superior only to the Brittial Baniya or Hari. The bulk of the caste still live by fishing, and education has made but little progress among them. Marriage dose not take place till the girl is fully grown, and they are free from any puritanical notions with regard to the relations between the sexes. Their priests are said to be decended from a Brahman father and a Nadiyal mother, but for all practical purposes they are Nadiyals and intermarry with Nadiyal girls.

The Koch. **Males 4,320** **Famales 3,235**

The Koches are one of the race castes of Assam. Originally they were an aboriginal tribe, apparently of Mongolian origin, which, at the beginning of the

sixteenth century, rose to power under their great leader Viswa Singh. His son, Nar Narayan, extended his conquests as far as Upper Assam, Tippera, and Manipur; and by the middle of the sixteenth century, the Koch king had attained to a position of such power, that the aboriginal people were anxious to be enrolled as members of his tribe. The result is that at the present day the name is no longer that of a tribe but of a caste, to which, in Lower Assam, new converts to Hinduism are admitted. In Sibsagar and Lakhimpur, these converts still retain their tribal names, and the Koch is a respectable Sudra caste, which is not broken up into various subdivisions. This is not the case in Lower Assam, and the different groups are there allotted a different status, which is dependent on the time that has elapsed since conversion took place, and the extent to which aboriginal habits have been shaken off.

Religion.

Classified by religion, the population of Lakhimpur was distributed in the following proportions in 1901.—Hinduism 90 per cent., Animism 5 per cent. and Muhammadanism 3 per cent. The three principal sects of Hinduism recorded at the census of 1901, were Saktism, Sivaitism, and Vaishnavism.

Hindus-Saktists.

Thirty-four per cent. of the Hindus who returned their sect in 1901, described themselves as followers of Sakti, or worshippers of the reproductive powers as manifested in the female. More than half of these Saktists were, however, censused on the tea plantations, and a considerable number of those living in the villages were probably ex-garden coolies. The great

majority of these persons were no doubt so styled, because they ate meat and drank liquor, though this in a garden coolie is not so much an indication of his adherance to the goddess Kali, as of the uncertainty of his title to the name of Hindu at all. Saktism is a foreign growth in Assam, and Vaishnavism is the national form of Hinduism.

Sivaitism.

Sivaitism is the counterpart of Saktism, and is concerned with the worship of the procreative energy as manifested in the male. In 1901, 9,079 persons in Lakhimpur professed this special form of Hinduism, a large proportion of whom were found in North Lakhimpur. It is, however, doubtful whether the distinction between the worshippers of Siva and Sakti was very clearly understood.

Vaishnavism

A considerable number of Hindus did not attempt to specify their sect in 1901, but, of those who committed themselves to this extent, nearly 62 per cent. declared their adherence to Vaishnavism. The following description of the development of Vaishnavism in Assam is extracted from the Report on the Census of 1901.

"Sanker Deb, the apostle of Vaishnavism in Assam, was born in 1449 A. D., and was the descendant of a Kayastha who, according to tradition, had been sent, with six of his caste fellows and seven Brahmans, to Assam by the king of Kanaijpur as a substitute for the Assamese prime minister, who had fled to his court for refuge. The licentious rites of Saktism had aroused his aversion while he was still a boy, and his desire to found a purer system of religion was increased by the teachings of Chaitanya in Bengal. Like most reformers, he met with vehement opposition from the supporters of the established order and he was compelled to leave his home in Nowgong and to fly to the inhospitable jungles of the Barpeta subdivision. Here in conjunction with

his disciple, Madhab Deb, he founded the Mahapurushiya sect, the main tenets of which are the prohibition of idolatry and sacrifice, disregard of caste, and the worship of God by hymns and prayers only. Sanker himself was, like a true follower of Chaitanya, a vegetarian, but the low-caste people who formed a larger proportion of his converts, found his injunctions a counsel of perfection. The Mahapurusbiyas are accordingly allowed to eat the flesh of game, but not of domesticated animals, though, with a subtlety only too common in this country, they observe the letter of the law, prohibiting the spilling of blood. by beating their victims to death. The great centre of the Mahapurushiya's faith is the *sattra* at Barpeta, where a larger number of persons persist in living, huddled together, in defiance of all the laws of sanitation, and resist with surprising pertinacity all efforts to improve their condition. They are a peculiarly bigoted people, and are strongly opposed to vaccination ; with the result that the mortality from small pox in the neighbourhood of the *sattra* is exceptionally high. It was not long, however, before the Brahmans reasserted their influence ; and shortly after Sankar's death, two of his followers, who were members of this caste, established sects, called, after their founders, Damodariya and Hari Deb Panthiya, which are distinguished from the Mahapurushiyas, by the respect paid to the distinctions of caste. and a certain tolerance of idolatry. A fourth sect was founded by one Gopal Deb, but it originally seems to have differed in no way from the Mahapurushiya creed, and subsequently its followers adopted the teachings of Deb Damodar. There is in fact, practically no distinction between the Damodariyas, the Hari Deb Panthiyas, and the Gopal Deb Panthiyas, and the Vaishnavites of the Assam Valley can be divided into the Mahapurushia and Bamunia or "other Vaishnavas," as they have been called in the census tables. The former will accept a Sudra as a religious guide, worship no God but Krishna, and are uncompromising in their hostility to idols ; the latter will only recognise Brahmans as their gosains, permit the adoration of other deities, such as Siva and Kali, in addition to that of Krishna, and allow sacrifices to be offered in their honour."

The Bamunias are also more liberal in their diet, and will eat goats, pigeons, and ducks, a form of food that is not allowed to orthodox Vaishnavites in Bengal. Madhab Deb, like most religious reformers, was a strict disciplinarian. The story goes, that the breach between

him and Gopal Deb arose one stormy day, when, the party were returniug to Barpeta by boat. Gopal Deb, anxious for the safety of his teacher, apostrophised the storm clouds passing overhead, and begged them to restrain their fury till Madhab had reached the shore in safety. This innocent remark was construed into an invocation of Varuna, the god of rain. Gopal Deb was denounced as an idolater, and was incontinently, by order of Madhab, flung out of the boat. Such treatment was enough to damp the enthusiasm of the most ardent disciple. Gopal Deb, wallowing in the water, gallantly shouted out defiance to his former leader, and warned him that in future he would be treated with uncompromising opposition.

The Moamarias. The Moamarias are a section of the Vaishnavas who for many years have borne a distinct and separate name, though the doctrines to which they pin their faith do not, according to their own accounts, differ in any way from those originally taught by Sankar Deb. The founder of the first Moamaria *sattra* was Aniruddha, a disciple of Gopal Deb. One of the names by which his followers are called, *Purana Bhokot*, is said to have been given to them in consequence of an incident which occurred when Aniruddha paid his first visit to his spiritual teacher. Gopal Deb seems to have been aware that twelve holy men were coming to enrol themselves as his disciples, and determined to test the extent to which they had renounced the comforts of this world. He accordingly gave orders to have a new path cleared to the *sattra*, and left the old one under jungle. Aniruddha

was the only one of the twelve who deliberately chose the old and harder path, and this trifling act of mortification is still commemorated even at the present day.

The first *sattra* was established by Aniruddha in 1615 A. D., at the Balikuchi village in the Narayanpur mauza of North Lakhimpur; but as it was too close to the villages of Daflas and other low caste people, it was removed by the gosain to the Nahorati village on the north bank of the Luhit. From there it was again moved, first to Kutiaputi in Jorhat, then back to the Majuli, then back again to Jorhat to the Barbheti in the Maloa Pathar, and finally in 1816 A. D to the banks of the Dinjan near Chabua in Lakhimpur. At the present day, the Moamarias or Mataks are cut off from communion with the other Vaishnavas of Assam. Men of all castes are members of this sect, but a Matak Kalita, Brahman, or Ahom cannot intermarry or eat with other Kalitas, Brahmans, or Ahoms; and the Matak members of each caste form an endogamous section in it. Their rigorous exclusion from bed and board by their caste fellows dates from the time of the Moamaria insurrection, for which their gosain was considered to have been principally to blame. Raghu, one of the leaders of this rebellion, seems to have compelled many of the principal Vaishnavite mohunts to become disciples of the Matak gosain, and this was an insult which they were quite unable to forgive. The horrors of that civil war were such that it is only natural that the memory of it should survive, and the Moamarias are still regarded with disfavour by other Assamese Hindus.

The Mataks are said to be extremely loyal to their gosain, and declare that the name itself is derived from *ekmat*, a title given them in recognition of their prompt obedience. The following story is told in illustration of their independence. One of the Ahom Rajas had heard that the Mataks would never bow their heads, and determined to put their stubbornness to the test. A sharp sword was fastened across a road at the height at which it would meet the neck of a mounted man, and a Matak was then ordered to gallop along the road. The foolish man declined to bend his head to avoid the sword, and as a natural consequence it was lopped clean off from his shoulders.

Apart from the Moamarias most of the Vaishnavites in Lakhimpur are disciples of the gosains residing on the Majuli. A full account of these gosains and their surroundings will be found in the Gazetteer of the Sibsagar district. The influence of these priests is very great, and they are possessed of considerable pecuniary resources, as every disciple sends a yearly offering varying from a few annas to five or six rupees. Offerings are also made in kind, especially by villagers who live in the vicinity of the *sattra*, and consist of rice, paddy, home made cloths, molasses, plantains, and the other products of their farms and gardens. The *sattra* store houses are thus always full of all the material comforts valued by the Assamese. In every community which includes a considerable number of his disciples, the gosain has a *medhi* or agent, who sometimes occupies as high a position in the social economy of the Gosains.

village as the *gaobura* or village elder appointed by the Government.

At certain seasons of the year, the gosains go on tour through the villages and are visited by their followers. These progresses are generally attended with considerable pomp and dignity. If the journey is made during the rainy season, the gosain and his followers travel in state barges, whose curved prows and slender lines distinguish them from the ordinary rough built country boat. Most of the *sattras* own one or more fine elephants, and these ponderous animals take a leading part in the procession that escorts the spiritual leader of the people. The gosain himself is carried in a litter, drums are beaten and cymbals clashed before him, and when he alights he is not permitted to touch the ground with his bare feet. It is not always that the influence of the priest is used for good. Bigotry and intolerence, and dislike to change or progress in any form, are often found in those who profess to be the ministers of God, but from reproaches of this kind the Vaishnava gosains of Upper Assam are entirely free. Dignified but courteous in their demeanour, they have ever been noted for their loyalty to Government, and their influence is altogether beneficial in encouraging purity of life, and obedience to the authorities.

Sattras. There are only three *sattras* in Lakhimpur itself. The principal Moamaria *sattra* is situated near Chabua on the Dinjan stream, and is wanting in the dignity attaching to similar institutions in Sibsagar. The Namghor is not much larger than that found in any

ordinary prosperous village, there are no lines occupied by resident *bhokots*, and a traveller might easily pass by the place without realizing that he was in the neighbourhood of one of these religious houses. The gosain enjoys a grant of 2,502 bighas of land, held at half the ordinary rates of land revenue, and possesses some six or seven elephants. Worship is carried on by thirty or forty *bhokots* who live in the neighbourhood of the Namghor. The building itself consists of a huge hall, whose roof is supported on massive wooden pillars. At the further end is a *singhasun*, or species of carved lectern, on which the sacred book reposes, but except for this the whole of the floor space is bare. Curious paper masks, and figures which are used in theatrical performances, are suspended from the pillars, and in one corner are some colossal drums. The Doms or Nadiyals are not allowed to enter the main Namghor, and worship in a smaller building close by. Another Moamaria sattra is situated at Gorpara in the Rohmoria mauza, and holds a grant of 427 bighas of land on favourable terms.

The Tiphuk *sattra* is said to have been founded in the latter half of the eighteenth century, and was situated in the Ujannakhankhola mauza. There were no temple lands alloted to this institution, but the gosain, who is an Ahom, was allowed a remission of Rs. 10 on his land revenue, and remissions of Rs. 3 were allowed to 106 of his disciples. This concession has now, at the request of the gosain, been withdrawn, and in its place he has been given a thousand acres of land under thirty years

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lease in the Buri Dihing mauza, to which it is proposed to move the *sattra*.

Most of the Assamese in the Tipling and Ujannakhan khola mauzas are disciples of the Tiphuk gosain, while the Moamarias are found in the Rangagora, Chabua, Polonga, Rohmoria, Bogdong, and Madarkhat maúzas. Elsewhere, the bulk of the Vaishnavites are disciples of the gosains of Auniati, Dakhinpat, and Garamur.

Temples In addition to the *sattras*, there are a few small temples in the district, all of which are situated north of the Brahmaputra. The buildings are insignificant erections of bamboos, reeds, and thatch, and each of them is endowed with a few acres of land held revenue free or at half the ordinary rates. The following statement shows the names of these so called temples and the mauzas in which they are located.

Mauza.	*Temple.*	*Mauza.*	*Temple.*
Lakhimpur ...	Nil Gosain.	Naobaicha ...	Lonpani Murabhoga.
Do. ...	Panchanan Gosain.	Gohaingaon ..	Harhi.
Do. ..	Boithaathi Gosain.	Narayanpur ...	Phulpani.

The number of temples and *sattras* in Lakhimpur is small enough, but this is not unnatural in a frontier district, which was too remote from court, and too much exposed to raiders from the north and east, to offer many attractions to the priestly caste. The population too was sparse, and Brahmans doubtless shrank from settling amongst the rude and jungly inhabitants of Lakhimpur. Relcis of the Chutiyas'

barbaric creed are to be found in the Sadiya mauza; and in the villages of Kokramara, Lakhimpur, Kundilgao, and Bozalgao there are silver images of the old gods and goddesses such as Tameswari, Buraburi, and Kesakhata, which are worshipped by the people.

The Brahmakund

The most sacred place in Lakhimpur is, however, the Brahmakund, a deep pool in which Parasu Ram is said to have cleansed his axe after the slaughter of the Kshattriyas, and which is an object of pilgrimage to devout Hindus from every part of India. From Sadiya, the would-be pilgrim can go by road to Chunpura, a distance of 16 miles. Here he must take to his boats, and the strength of the current can be judged from the fact that, while the journey up stream to Mishmi ghat takes two days or more, down stream it can be completed in 2½, hours. From Mishmi ghat it is a march of about 14 hours to the Brahmakund, the route for the most part lying along the dried up beds of rivers, and in some places for several miles up running streams. At Chowkham's village near Mishmi ghat, there are the shops of several kaiyahs, but this is the only place where supplies can he obtained. The charge for a boat from Sadiya to Mishmi ghat and back is Rs. 2 per head; and from Chowkham onwards, the cost of each coolie is Rs. 5, in addition to Rs. 2 commission to the Khamti chief by whom they are supplied. The pool itself is situated at the point where the Brahmaputra debouches from the hills upon the plain. The river at this point sweeps round in a mighty curve, and the Brahmakund is situated in a back water on the south bank. It is

surrounded on every side with hills, and the scenery in the neighbourhood is wild and impressive.

Muhammadanism. The proportion of Muhammadans (3 per cent.) is lower than that found in any other plains district of the Province. This is due to the fact that Lakhimpur is situated at the extreme end of the valley, well beyond the Moslem zone of influence. Most of the Muhammadans in 1901, were found in the sadr subdivision, and over a quarter of the total number were residing in the town of Dibrugarh. The first Muhammadan colonists are said to have settled about 100 years ago at North Lakhimpur and Jaipur. On our occupation of the country, Muhammadan sepoys stationed at Dibrugarh and Sadiya contracted alliances with the women of the country, and made their homes in these two cantonments. Other recruits came in the shape of boatmen and traders from Bengal, with a certain number of ex-garden coolies. In 1872, there were only 3,826 Muhammadans in the district, but by 1901, their numbers had risen to 11,925. There are six mosques in Dibrugurh alone, five of which are masonry buildings. In the interior, worship is generally conducted in a hut, which occasionally takes curious forms. At Margherita, for instance, the mosque is a curious looking little building with a corrugated iron roof, and walls of well-tarred planks, which looks like anything rather than a place of worship.

Animism. Most men find considerable difficulty in giving a clear and intelligible account of the faith that is in them, and the unsophisticated hillman is no exception to the general rule. Broadly speaking their religiou

beliefs seem to fall under the following heads. Unlike the German metaphysician, they have no uncomfortable doubts with regard to their own existence, and the existence of the material world. To account for the production of these visible phenomena, they put forward various theories, which are hardly more improbable than the accounts of the creation given in most religious systems. The way in which the world came into existence is, after all, a matter of no very great importance, and the essential object of religion is to ensure a comfortable passage through life to its followers. No country or community is exempt from pain and trouble, and to the dwellers in the plains of India has been alloted a fairly liberal portion of the ills of life. When the cattle die, or small-pox or cholera visit the village, or other trouble comes, it is only natural to suppose that somebody or something is the cause of these misfortunes. The simple tribesmen then endeavour to ascertain the particular spirit from whose displeasure they are suffering, and to appease him in whatever way they can. A description of the various forms of tribal belief and of different methods of divination will be found in the Report on the Census of Assam in 1901 pages 46-49.

The number of animists in Lakhimpur is smaller than in any other district in the Assam Valley. In 1901, they formed less then 5 per cent. of the total population; whereas in the four western districts, the proportion ranged from 21 to 31 per cent. More than two thirds of these animistic people were censused in the

North Lakhimpur subdivision, where they formed about 16 per cent. of the total population.

Buddhists 4,572. The Buddhists of Lakhimpur are not, as in most of the other districts of Assam, merely Bhutias, Nepalese, and other temporary immigrants. Most of them are Khamtis, Singphos, or Phakials; people, who have emigrated from Bor Khamti, the Hukong Valley, and the Shan States, and have settled in Assam. In the Phakial village on the Dihing river near Margherita, there is a regular Buddhist monastery. The building, like the other houses in the village, is raised upon stout posts, well out of reach of flood, and consists of one large room with several smaller chambers leading out of it, while from the centre of the roof rises a curious pagoda like erection. At one side of the main hall is a raised dais, adorned with curious pictures representing the tortures of the damned. To the mild Buddhist artist, to whom all life is sacred, this subject proves as fascinating as to the medieval priest. The unfortunate sinners are represented as being chased and torn by dogs, and speared by the evil spirits who accompany them, as being slowly crushed between rocks till blood oozes from their mouths and noses, and as being hurled into lakes of fire. Others are to be seen struggling in the thorny cane brake, or with cords around their necks being strangled and otherwise mutilated by evil looking demons. At the back of the dais there is an altar on which stand some twenty gilded images of Buddha, the largest being as much as two or three feet high. But the most curious thing about this place, right on

the frontier of a frontier district, is the strange mixture of east and west. Before the altar stands a camp table, save the mark, on which are placed quaint specimens of Burmese lacquer ware, intermixed with flower vases of a shape and pattern which sometimes disfigure a third class seaside lodging house in Eng'and. On the floor around the Buddhas are to be seen alm irahs with glass doors, looking glasses that are usually reserved for the bed-rooms of dak-bungalows, cheap American clocks, and other of the more hideous products of western civilization. The monks themselves have come from Burma, and, as in Burma, teach the village boys to read and write. The complicated Burmese character is laboriously inscribed on wooden boards smeared with charcoal, with pens that, like the teachers, have come from the neighbourhood of Moulmein. The Phakials themselves live in houses on piles, which are thatched with tokow leaves, (*livistonia jenkinsonia*) in place of grass. In the front verandah stands the loom on which the women weave cloths of a curiously complicated tartan. A part of the inner room is divided into tiny cubicles, and the Phakial sense of modesty is evidently more developed than is usual in Assam. More than half of the Buddhists enumerated in the district were Singphos and Khamtis, and a considerable number of the Nepalese professed themselves followers of this religion.

Other Religions.
Jains 271
Brahmos 37
Sikhs 15

The Jains are the enterprising Marwari merchants, who have succeeded in obtaining so large a share of the district trade The Brahmos belong to the advanced

and educated classes, the number of the Sikhs is too small to call for comment.

Christians.

The number of Christians is higher in Lakhimpur than in any other of the plains districts except Goalpara, and, as the figures in the margin show, the number of native Christians has been steadily increasing. Nearly half of these described themselves as "Kistan" and did not commit themselves to a preference for any special sect. Those who were brave enough to grapple with the intricacies of theology returned themselves either as Baptists or as members of the Anglican Communion.

Native Christians.

1881	610
1891	1243
1901	2606

Occupation.

As in the west of the Province, agriculture is the staple occupation of the people, but the proportion supported by it (87 per cent) is lower than that in most of the important tea districts. This is due to the existence of valuable coal mines at Tikak and Ledo, in which a large number of coolies are employed, to the oil wells at Digboi, and to the railway which carries these products to the Brahmaputra. The saw mill industry is also of some importance, and the enormous foreign population, who do not, like the natives of the country, provide for most of their own simple wants, supports a larger proportion of traders than is found in any other district in the Province. Nearly two-fifths of the persons supported by agriculture were garden coolies or their dependants. The immense majority of the remainder were petty cultivators holding direct from Government, as in this sparsely populated district the number of persons, who are willing either to occupy the land of another as a tenant, or to cultivate it as a servant, is naturally

small. The boating and fishing castes are not very strongly represented, and a large number of them have either abandoned their traditional occupation for agriculture, or have preferred to return it as a more respectable avocation on the census schedules. In 1901 the occupations of the people were classified under five hundred and twenty different heads, and details for the great majority of these heads will be found in Table XV, Part II of Part II of the Census Report. These figures do not, however, lend themselves readily to review. The proportion of workers to the total population (67 per cent.) is unusually high. This is due to the fact that the wives and daughters of the ordinary cultivator work in the fields, and to the large number of garden coolies, whose children begin to work at a very early age.

Amusements and festivals.

Feasts, singing parties, and *bhaonas* or simple theatrical performances are the principal amusements of the villagers. The *bhaonas* are aften held in temporary sheds constructed by the road side, and on a winter's morning the traveller who is early abroad frequently comes upon parties of revellers still lingering over the pleasures of the previous night. The *dol jatra*, or festival in honour of Krishna in February or March, when the image of the god is swung to and fro, and the people pelt one another with red powder in memory of his amorous exploits with the milk maids of Brindaban, is not in much favour with the Assamese, but is an occasion of great merry-making for coolies and other foreigners. The *janmastami* in honour of Krishna's

birth in August or September, and the *Sivaratri* in memory of Siva in March, are kept as fasts rather than feasts, and the Durga Puja, like the *fagua* or *dol jatra*, is not a festival in which the Assamese Vaishnavites take much interest. The Kali Puja or *dewali*, which follows the Durga and Lakshmi Pujas, is a great occasion with the Marwari merchants.

The Bihus. The special festivals of the Assamese are the three *bihus*, and the sradh ceremonies of Sankar Deb and Madhab Deb, the founders of the Mahapurushia sect. The Kartik *bihu* is celebrated on the last day of Aswin (October 14th.), and is not an occasion of very much importance. Hymns are sung in honour of God, and, in place of their usual meal of hot rice and curry, the people take cold food such as curds, molasses, plantains and cold rice. The Magh *bihu* is the harvest home, and begins on the last day of Pous (January 14th.). For weeks beforehand tall heaps of rice straw piled round a central pole, are a prominent feature in the rural landscape. At the dawn of day the villagers bathe and warm their chilled bodies at these bonfires, a very necessary precaution, as at this season of the year the mornings are always cold and generally foggy. The Magh *bihu* is to some extent a childrens' festival, and most of the jollification is confined to the smaller boys, who sing and dance and feast in small grass huts that have been constructed for the purpose. The Baisakh *bihu* which begins on the last day of Chœt (April 14th.) is in honour of the new year. The cattle are smeared with oil mixed with matikalai, turmeric, and rice, and

are then taken to the nearest stream and bathed. The villagers go from house to house visiting their friends and relations, and offer them presents of cloths and other things. Buffalo fights are organised in the rice fields, but these contests are rather tame affairs and the animals very seldom injure one another. A game is also played with eggs, in which one is banged against the other, and the egg which cracks becomes the property of the owner of the cracker. This *bihu* is an occasion of some license, as boys and girls dance together in the fields and sing suggestive songs, and lapses from chastity between members of the same caste are considered almost venial. This is the season of the year when run-away matches are most common, and during the next few weeks the outraged but avaricious parent complaining of the abduction of his daughter, is by no means an uncommon sight in the local courts. The sradh ceremony of Sankar Deb is celebrated in August-September and that of Madhav three days before the *janmastami*. All work is laid aside on these two days and the people devote their time to feasting and the singing of hymns.

North of the Brahmaputra the villagers periodically assemble and offer prayers to God, imploring him to protect them from cholera, cattle plague, and similar misfortunes. In the Gohaingao mauza a large camp meeting of this sort takes place every year in the Gohaingao Raidengia Pathar. In the Kadam and Pathalipam mauzas such gatherings are held every second year or so.

Marriage customs.

The forms of marriage in vogue amongst the Assamese are the *hompura*,* or full Hindu rite, when the sacred fire is lighted and a priest is engaged to perform the ceremony, the *kharu moni pindha*, in which a feast is given to the friends and relations, and ornaments are given to the girl, and the system, under which the bridegroom, who is called a *caponiya*, enters the house of his prospective father-in-law, and works for his wife as Jacob worked for Rachel. Brahmans, Kayasthas, and well-to-do Kalitas invariably perform the *hompura* ceremony. The cost of this ceremony varies according to the circumstances of the contracting parties. In the Rangagora mauza it is said that the dignity of a '*hom*' can be obtained for the modest sum of Rs. 40 : but this seems to be a remarkably low estimate, and this form of marriage seldom costs less than Rs. 100, and sometimes as much as four or five times that sum. This expenditure is incurred on the purchase of ornaments and clothing, on the payment of priests, musicians, and palki bearers, and on a feast to the relations and friends, the principal ingredients of which are rice, molasses, curds, and betel nut. In Lower Assam even Brahmans generally take money for their daughters, but this practice is indignantly repudiated in Lakhimpur. Even amongst the lower castes the custom of taking a bride price seems to be falling into disfavour, and when a girl has been regularly courted it is said that the father often foregoes his claim for a cash payment. The process of courting consists, however, not in the presenting to the girl of costly trinkets and other

* A description of this ceremony will be found in the Census Report for 1901, P. 63.

tokens of affection, but in conveying substantial loads of rice, curds, plantains, betel nuts, tobacco, and even opium to her father on the occasion of each *bihu*. If the young couple elope without these necessary preliminaries, the father demands, and generally obtains, fair compensation in hard cash. These elopements are not uncommon and are due to several causes. Sometimes the price asked for the girl is unreasonably high, or at any rate beyond the resources of her lover. The lady will then consent to an abduction; as when once her lover has obtained possession of her person, her parents are more disposed to be amenable to reason. Sometimes she takes a dislike to her affianced lover, and, in spite of his protracted wooing of her father, takes the law into her own hands and goes off with the man that she herself prefers. Sometimes the father is a party to the fraud, and after taking presents from one man hands over the girl by private treaty to another. Complaints of abduction are not uncommon in the criminal courts, but the great majority are of a civil nature, and are generally settled by the payment of a small sum of money.

Most of the local authorities report that the *caponiya* is not allowed to have intercourse with the girl before he is publicly married to her, but, though such practices may not receive the formal sanction of the community, it is doubtful whether in private the girl would deny her favours to her affianced lover. The Ahoms generally marry by the *chaklong* rite, which has already been described. The Phakials near Margherita are reported to pay heavily for their brides, but in the neighbouring

mauza of Buri Dihing the cost of a wedding is said to be only forty or fifty rupees. The ceremony there consists of the distribution of alms in the presence of the Buddhist priest and the village elders, and a feast to the relations and friends. A feast is the essential part of the marriage ceremony amongst the animistic tribes, and the Miris further require that a girl of the bridegroom's family should be promised to some relation of the bride's. The girl in question may at the time be a child, but if, when she grows up, she is not duly handed over according to the terms of the agreement, the family of the original bride will take her from her husband, though by this time she may have borne him several children. In North Lakhimpur the Nadiyals marry by what is known as the *jhopa goriya* rite. The guests sit assembled in the courtyard of the house round six or seven baskets containing dried rice and other things. The bride and groom are loosly tied together with a scarf, and are led round the baskets by the bride's mother. The bride takes the lids off the baskets, the bridegroom puts them on again, and the elder girls in the meanwhile playfully strike them with branches of the castor oil plant. This form of ceremony has the advantage of being cheap, and only costs from twenty to twenty-five rupees, whereas a man who wishes to make some thing of a splash can spend ten times as much on the *hompura* rite.

CHAPTER V.

AGRICULTURE AND FORESTS.

Crops grown—Rice—Mustard—Pulse—Fibres—Agricultural implements—Sugarcane—Causes affecting productiveness of land—Garden crops—Outturn and value of staple crops—Floods—Live stock—Development of tea industry—Labour supply—Site of gardens—System of cultivation and manufacture—Outturn and prices—Forests—System of management—Timber trees.

The staple food crop of the district is rice, which in 1902-03 covered 56 per cent., of the total cropped area. Other important crops are tea, 27 per cent., and orchard and garden crops 7 per cent., but a large part of the area shown under this head is occupied by the homestead, and it is doubtful whether as much as one half is actually under cultivation. Mustard occupied 3 per cent. of the total cropped area, miscellaneous food grains, nearly all of which are different forms of pulse, 2 per cent., and sugarcane 2 per cent. Wheat, barley, and gram, the food grains of Upper India, are grown in small patches by immigrants from those parts, but the total area under these three crops in 1902-03 was only 34 acres. The area under different crops will be found in Table VII. The general system of cultivation and the manner in which the staple crops are raised is described in the following paragraphs. Crops grown.

Rice. Sali.

Rice falls under three main heads, *sali*, *ahu*, and *bao*; the proportion of the total rice area normally occupied by each of these three classes, being *sali* 84 per cent. *ahu* 14 per cent. and *bao* 2 per cent. *Sali* dhan or transplanted winter rice, is first sown in little beds or nurseries *(kothiatoli)* near the homestead. The land; is broken up in April or May, is ploughed five or six times, and is generally manured with cowdung and sweepings. The size of the nursery varies with the area to be planted out, but generally stands to the rice fields in the proportion of about 1 to 16. The seed, which has been selected from the largest ears of the previous year's crop, is steeped in water for two or three days, spread out to allow it to germinate, and sown broadcast over the bed in May and June. It comes up a rich emerald green, and, at the beginning of summer, these patches of the brightest green herbage are a striking feature in the rural landscape. In the meanwhile, the fields are being got ready for the reception of the seedlings. The industrious husbandman starts ploughing as soon as the soil is softened by the spring rain. The process is repeated from four to eight times, till the land has been reduced to a rich puddle of mud, but the bulk of the ploughing is not done till May or June. After the third ploughing the field is harrowed, the little embankments, a few inches high, intended to retain the water are repaired, and if the fields adjoin the road or the village site they are fenced in with split bamboo. When the seedlings are about seven or eight weeks old, they are taken from the nursery bed and carried in large bundles to the field. Here they

are planted out in handfuls (*gach*), each of which contains four or five plants. The distance at which these are planted from one another depends upon the fertility of the soil, but the handfuls are generally placed about 18 inches apart. It is not unfrequently the practice to steep the young plants in water before they are planted out, and if they seem too luxuriant, the tops are cut off at the time when they are removed from the nursery. Transplanting goes on from the beginning of July to the middle of September, and is generally carried out by women. The work is of a most arduous description, and involves stooping for hours in a field of liquid mud, under the rays of a burning tropical sun. Before the end of the rains the crop is fully grown, though the ears are still empty, but about the beginning of October they begin to fill, and the field to turn to a rich yellow. From the middle of November to the middle of January harvesting is going on. The women grasp a handful of the ears and cut them off about eight inches below the head. These handfuls (*muthi*) are tied up with a piece of straw and left in the field for a few days to dry. When the grain is ready to be transported to the granary, the *muthis* are made into larger sheaves. Six *muthis* form a *thor* or *jhap*, and five or six *thors* a *dangari*. A *dangari* is then affixed to either end of a sharp pointed bamboo called *biriya*, if a split springy bamboo, or *kanmari* if of a larger stouter kind, and the load, which is called a *bhar* and carried across the shoulder, is taken to the homestead by the men.

The different kinds of *sali* dhan fall under two main

divisions, *lahi* and *bar*. *Lahi* ripens earlier than *bar* and, though the grain is of a finer quality, the yield is appreciably smaller. It is planted on the higher fields which dry up first at the conclusion of the rains, and which are thus not suitable for *bar*. Altogether there are said to be not less than 70 different varieties of *sali* dhan in the district.

Bao dhan. *Bao* dhan is sown broadcast about the end of March, the field having been previously prepared by four or five ploughings. It is grown in flooded tracts, and the embankments made between the fields are smaller than in the case of *sali*, and are sometimes dispensed with altogether. It ripens aboutthe beginning of January, and is harvested in the same way as *sali*. *Bao* dhan is hardly ever grown except in the low land in the Dibrugarh tahsil, and the country lying between the left bank of the Subansiri and the Brahmaputra. The crop is a precarious one as it is liable to be destroyed by flood, and the population is not yet sufficiently dense to render it necessary to occupy the less favourable tracts.

Ahu dhan. *Ahu* or summer rice is grown either on high land, or on low land near the Brahmaputra, the Luhit, and the Subansiri. For low land cultivation the usual procedure is as follows :—

In May the jungle is pressed down and burnt, and the land left till towards the end of the rains. The jungle that has sprung up in the interval is cleared in the same way, the process being known as *gojola kata*,

and ploughing begins in January. The field is ploughed three times and harrowed, and the clods are broken up by a mallet. Another ploughing and harrowing follow, the seed is sown, and the land again ploughed and harrowed, to ensure that the grain becomes thoroughly mixed with the soil. When the plants are about six inches high and catch the wind *botah boloah*, they are harrowed again and weeded, and finally harvested about the end of August. The crop is, however, a precarious one, and is liable to be destroyed by a sudden rise of the river. The plants can live under water for as much as a week, but if, after this time, the floods do not retire, they are permanently destroyed. *Ahu* is often grown on the *chaparis* in conjunction with mustard, and no jungle cutting is of course required when the soil has been already cleared for the oil seed crop. The same field is seldom cropped for more than three years in succession. The weeds, which were unable to find a lodging under the dense growth of *ikra* (*saccharum arundinaceum*), *khagari* (*saccharum spontaneum*) and *nal* (*phragmites roxburghii*), with which the land in it's natural state is covered, soon spring up when once the jungle has been removed. After the third year, it is less trouble to burn fresh jungle than to clean the old fields of weeds, and by a change of site the peasant gets the further advantage of the manure of ashes for his next year's crop.

High land *ahu* is grown on land which is too high for transplanted rice, and is fairly common in the Ujan Nakhaukhola mauza and in the country near the foot

of the Himalayas. In it's natural state this land is covered with a scrubby forest, and, as the same field is not cropped for more than three years in succession, the *ahu* cultivation of Lakhimpur closely resembles the *jhum* cultivation of the hill tribes. It is a significant fact that this high land *ahu* is seldom combined with pulse and mustard, though there is no reason why one or other of these crops should not be taken from the field in the cold weather. After the land has remained fallow for five or six years, the villagers return to it again.

Mustard. Mustard, as has already been said, is usually grown in conjunction with *ahu* on the riparian flats. The jungle is cut down in February and March, and, if the land cannot be prepared in time for summer rice, is allowed to rot upon the ground. What remains is burned in October, the stumps are dug out, and the land is then ploughed over four or five times. The seed is sown about the middle of November, and the plant is ready to be pulled from the field about the middle of February. It is generally left to dry for a few days, and is then tied in bundles and carried to the homestead, where it is threshed out by the cattle. Almost the whole of the crop is raised in the North Lakhimpur subdivision; Dhakuakhana, Gohaingao, Telahi, and Narayanpur being the mauzas in which most of it is grown.

Pulses Pulse is sometimes grown on the alluvial flats that fringe the Brahmaputra, in conjunction with summer rice

and mustard, but a crop is often taken from the land on which rice seedlings, early rice, and sugarcane have been grown, as it is generally and rightly thought to improve the quality of the soil. In the *chaporis*, if new land is taken up, the first proceeding is to cut and burn the reeds and grass. Only two ploughings are required, and those are of the very lightest character, and, if the ground is naturally clear of jungle, the seed is sometimes simply sown on the river flats as soon as the floods subside. Pulse is also scattered broadcast amongst the rice stubble, or between the *sali* plants, if the land is still soft; but this method is not generally in use. The seed is sown in September, and the crop is ripe about four months later. The plants are pulled up by the roots, left for a few days in the field to dry, and are then collected at the convenience of the cultivator. The seeds are threshed out by cattle, but as the grains do not separate readily from the pods, their efforts are supplemented by a man with a flail. Several different kinds of pulse are grown, but nine-tenths of the crop belong to the variety known as *mati-mah* (*phaseolus mungo radiatus*). Other kinds are *magu-mah* (*phaseolus mungo*), a species which has a smaller yield and requires more careful cultivation but commands a higher price and possesses a more delicate flavour. It is seldom grown except on the river *chaporis*. *Kala-mah* (*lathyrus sativus*) is grown, but not in any considerable quantities. It has a large yield but does not fetch a high price. The principal pulse producing tracts are the Dhemaji, Gohaingao, and

Telahi mauzas on the north bank, and the Dibrugarh tahsil.

Fibres. Jute is grown in small patches as a garden crop. The seeds are generally sown in April, and the plants are cut in August and September, stripped of their leaves, tied in bundles, and left to rot in pools of water for from seven to twelve days. When they are ready, a handful of stems is taken up, broken in the middle, and beaten to and fro in the water, till the inner part drops out and only the fibre remains. The bundles of fibre are then dried and are ready for use, but the area under jute is at present absolutely inconsiderable. Small patches of rhea (*boehmeria nivea*) are grown in the gardens of the fishing castes, where it is heavily manured. The skin is stripped off from the stem and the fibre separated from the outer covering. The thread obtained is exceptionally strong and durable, but the difficulty of decortication has hitherto prevented the growth of rhea on a commercial scale.

Storage and threshing of grain. The grain is usually stored as it is brought from the field in an outhouse called *bhoral*. When it is required for use, the sheaves are untied and spread over the courtyard. Cattle are then driven round and round over the heap of grain and straw, till the ears have been finally separated from the stalk.* The grain is next passed through a sieve, and placed in a flat bamboo tray called *kula*. It is then jerked into the air and

*An experiment made by Mr. Darrah, Director of Land Record and Agriculture showed that nine bullocks took 2 hours and 8 minutes only to thresh out 7½ maunds of paddy.

allowed to fall back into the tray, or held aloft and allowed to fall slowly to the ground, till gradually the chaff is carried off. After threshing, the paddy is stored in huge drums, called *duli or mer*. They are made of split bamboo, and the outer surface is plastered over with clay and cowdung.

Agricultural implements. **The plough.** The agricultural implements in use are of a very simple character. The plough is usually made of the jack fruit tree or some other hard wood, and consists of three parts: the handle and body which are usually all in one piece, the pole which joins the plough at the junction of the handle and the body, and the yoke which is merely a piece of wood, fastened by rope at right angles to the pole, with pegs affixed to it to keep it from sliding from the necks of the bullocks. The front portion of the body is sharpened to a point which is shod with iron, and in soft soil a piece of bamboo is sometimes substituted for the iron. This piece of iron is the only portion of the plough which the farmer has to purchase. The rest he makes for himself. The whole instrument is suited to the wretched class of animal required to draw it. It weighs as a rule about 20 lbs. and, when cattle are used, the yoke seldom stands as much as 36 inches from the ground. When buffaloes are employed, the whole plough is constructed on a larger scale. It is obvious that such an implement can only penetrate from three to four inches into the soil, but the wretched quality of the plough cattle prohibits the use of a more effective instrument.

Other implements. The harrow (*moi*) is generally a bamboo ladder, about

eight feet in length, on which a man stands as it is drawn across the field. It is used to crush the clods turned up by the plough before mustard or summer rice is sown, and to reduce the fields required for wet rice to puddle. It's place is sometimes taken by a plain log of wood. It is prepared by the cultivator himself from the bamboos growing in his garden. Clods are broken by the mallet (*dheli mari)* which is also made at home. Hoes (*kodalis*) are used to trim the embankments (*alis*) which help to retain the water. The head is bought in the bazar, and costs from Re 1 to Re. 1-4, and is fitted with a shaft by the farmer himself. Sickles, (*kachi*) with which the rice is reaped, have also to be purchased and cost from two to four annas. In *ahu* cultivation, a large wooden rake (*bindha*), with teeth nearly one foot in length, is dragged over the crop by a bullock when the plants are about six inches high. The *nirani*, a kind of trowel with a long handle, is used for weeding *ahu* rice. The sugarcane mill is described in the paragraph dealing with the preparation of molasses The ordinary implement used for husking grain is the *dheki*, a long beam with a pestle affixed at the end, which is supported by two posts at about two thirds of the length from the head. The shorter end is depressed by the foot, and the pestle is thus raised into the air; the weight is then removed, and the pestle falls into a small hole, in a piece of wood sunk level with the ground, in which the grain is placed. The *dheki* is the implement ordinarily employed by the Assamese to husk their rice or pulse, but the animistic tribes generally use a large wooden mortar

(*ural*) and a pestle (*muri*). All of these implements are made at home.

Sugarcane. Sugarcane (*saccharum officinarum*) is propagated from the tops of the best canes, which are cut off at harvest time and kept in a shady place. One of these tops yields on the average about five canes, and as they contain but little juice, the cultivator does not sacrifice much of the gross product of his fields in the cause of reproduction. Four principal varieties of the plant are recognised. The *bagi* or white stands about seven feet high and has yellow canes of a soft juicy texture. The *teliya* is shorter, harder, and thinner, and the canes are of a deep red or even purple colour. The *Bangala* or *Bam*, a foreign variety, is larger and and more juicy than the indigenous kinds, but yields a smaller proportion of sugar. The *megala* is a hard and thin variety of the *mugi*, and, where grown, is planted round the edge of the field. The land is hoed up till it is reduced to a fine tilth, and the tops planted in trenches between April and June. The patch is fenced with split bamboo, and there is usually a stout hedge of arhar dhal (*Cajanus Indicus*); but constant watching is required to scare away jackals and other animals, and an empty oil tin with a clapper is generally to be seen suspended over each field. While the crop is growing it is continually hoed and weeded, and about August the leaves should be tied up round each cluster of canes, which is a troublesome proceeding. The earth from the ridges is heaped about the roots to strengthen their hold upon the soil, and this process is continued, until the relative

positions of ridge and trench are reversed, and the canes stand upon ridges with the trenches in between.

Most of the sugarcane in Lakhimpur is grown in the Dibrugarh tahsil, and in the Sadiya, Rohmoria, and Madarkhat mauzas of the sadr subdivision; and in Gohaingao and Naokhari in North Lakhimpur. It is often planted out on virgin forest land, which needs no manure and gives a rich yield. The Nepalese, who are largely engaged on it's production, plant their tops at the time when they are reaping the ripe crop. Harvesting goes on from January to April, and during the winter nights and in the foggy mornings the drone of the sugarcane mill is heard coming across the fields, in nearly every part of the Assam Valley where the "works of men" are to be seen.

Preparation of molasses. The native form of mill is still used by the Assamese for the extraction of the juice; but the iron mill which is far more expeditious is coming into favour amongst the foreigners. The native mill consists of two wooden rollers, fixed side by side in a trough hollowed out of a heavy block of wood. The tops of the two rollers pass through a hollow beam, supported by uprights let through the lower block of wood into the ground, and are cut into the form of screws which fit into one another. To the larger of the two (*mota bhim* as distinguished from *maiki bhim*) is affixed a pole, which is driven round in a circle, and thus causes the rollers to revolve. The motive power is usually supplied by the villagers themselves, but buffaloes are occasionally used for the work. The mill requires

rather more knowledge of carpentry for it's production than the other implements of agriculture, and can only be made by the more skilful of the villagers. The cane is placed between the rollers and crushed as it is slowly forced through. Each handful is passed through the mill three or four times, till nothing but foam appears. The juice trickles from the trough into an earthen vessel, and is then transferred to a small boat scooped out of a log. When twelve or fifteen gallons have been collected, boiling begins. The furnace is hollowed out of the ground, and has four circular openings to receive the cauldrons, which are made of the most durable kinds of potter's clay. Two of these vessels are placed about 9 feet from the furnace mouth, and only serve to heat the juice before it is transferred into the other vessels to be boiled. When the juice has been reduced to the proper condition, it is ladled into a wooden vessel (*gholani*) shaped like a small dug-out, and is stirred for half an hour. As the stirring continues, the liquid loses it's dark brown colour, and assumes the consistency and hue of yellow mud. It is then stored in earthen pots and the process is complete.

Causes affecting productiveness of land.

The fertility of the rice fields mainly depends upon the following five causes: the water supply, the quality of the soil, and the liability to injury from flood, wild animals, or shade. The first named factor is probably of most importance. The soil of the district varies from pure sand near the Brammaputra to clay so stiff as to be utterly unfit for cultivation. The land best

suited for the growth of rice is a clay loam *alatia*, the most fertile variety of which is called *bher bheria*, and is particularly deep and soft. The animals which do most injury to the crop are pigs, elephants, and monkeys. Elephants leave disastrous traces of their presence, but luckily do not remain long in any one locality, and are generally only found in parts of the Saikhoa, Jaipur, Buri Dihing, Makum, Sadiya, and Tengakhat mauzas. Serious damage is sometimes done by insects which are called *keonkata*, *tupalia*, *gandhi* (*leptorisa acuta*) and *charaha* (*hispa acuesceus*). The *gandhi* is a small bug, which injures the rice plant by feeding on the stems aud sucking all the sap from the young grains. It is most prevalent in July and August, and is particularly in evidence during a spell of hot dry weather. High wind and rain drive it back into the jungle, and good results are obtained by lighting fires of vegetable refuse to windward. The best remedy of all is to collect the insect by smearing a winnowing fan with some glutinous substance and brushing it over the ears of grain, when many of the bugs will be found adhering to the fan. This remedy should be tried in the morning or late afternoon as the insects do not feed in the heat of the day. The *charaha* is a tiny beetle, which eats away the outer surface of the leaves and stalks and thus affects the outturn of the crops. It attacks the young plants in the nursery and can most easily be destroyed there by spraying.* Smoking the fields also produces good

* The best solution is 1 lb. Paris green, 1 lb freshly slacked lime or flour and 150 gallons water. The solution should be kept constantly stirred and should be sprayed on with a fine sprayer.

results, but must be continued for some days or the beetles will return. Rain is wanted when *sali* rice is sown and is transplanted, but is not needed for the sowing of *ahu* and *bao*. During every stage of its growth, the plant is benefitted by moderate showers, but rain is absolutely essential at the time when the ears are first appearing. Hail storms in December sometimes lay the crop and add materially to the cost of reaping, but fortunately are very local in their action.

Garden crops. **The Plantain**

One of the most valuable of garden crops is the plantain (*musa sapientum*). As many as ten main varieties of this tree are recognized, but the most important are these known as *athia*, *monohar*, *cheni champa*, *malbhog*, *jahaji*, and *pura*. The first two groups are again subdivided into a considerable number of different species. The commonest form of *athia* is called *bhim*, a large tree which is found growing in the garden of nearly every house The fruit is considered cool and wholesome, and is very generally used as food for infants. The *monohar* is a somewhat smaller tree; the pulp of the fruit is white and slightly acid in taste, and is largely used in combination with soft rice and milk at village feasts. The *malbhog* and *cheni champa* are small trees, whose fruit is much appreciated by Europeans. The *athia* plantain is generally grown near the homestead, where it can obtain a plentiful supply of manure; but the finer varieties are planted at a little distance to protect them from the earthworms, whose attacks they are hardly strong enough to resist. Sandy soil and heavy clay

check the growth of the plant, and anything in the shape of waterlogging is most injurious. The trees are planted in holes about a foot wide and eighteen inches deep, and are manured with cowdung, ashes, and sweepings. Young saplings take from 18 months to two years to flower, and the flowers take from three to six months to turn to fruit. The plantain tree plays many parts in addition to that of fruit purveyor. The flower is much esteemed as a vegetable, the leaves serve as plates, and the trunks are used for decorative purposes on occasions of ceremony, and as food for elephants. An alkaline solution, distilled from the sheaths and the corm, is often used as a flavouring with curry, a practice which is mentioned by the Muhammadan historians of Mir Jumla's invasion. These portions of the tree are sliced, dried, and reduced to ashes. The ashes are placed in an earthen pot, in which there are several holes lightly plugged with straw. Water is then poured over them, which dissolves the alkali and trickles through the holes into the receiver below. The resulting product, which is known as *kharpani,* is used, not only as a seasoning, but as a hair wash, and as a mordant with certain dyes.

Other garden crops. The betel nut (*areca catechu*) is grown almost as universally as the plantain, and with the bamboo, forms the great trinity of trees in which the houses of the Assamese are usually embedded. The plantation is hoed up, and kept clear of weeds, and the trees are most liberally manured with cowdung. The pan vine (*piper betle*) is frequently trained up their stems,

and the leaf and nut, which are invariably eaten in conjunction, are thus grown side by side. Tobacco is a plant which is to be seen growing in the majority of gardens. The seedlings are raised in carefully manured beds in August and September. At the beginning of November they are transplanted into ground which has been reduced to a fine tilth, watered for a few days, and are protected from the sun by little sections of the plantain trunk. The bed is lightly hoed up two or three times, and not more than ten or twelve leaves are allowed to grow on each plant, the remainder being picked off as they appear. The leaves are first gathered in February and March, and there is a second but much inferior crop about two months later. If required for chewing, they are either dried under a shed, or else pressed into a hollow bamboo (*chunga*) and allowed to ferment. When the tobacco is destined for the pipe, though this is not the use to which it is generally put, the leaves are piled up in heaps till they ferment, cut up and mixed with molasses, and then are ready for the hookah. The commonest forms of vegetable grown are, spinach *pui* (*basella alba*) *lahi*, a species of *brassica*,, different kinds of arums (*kachu*), different kinds of yams (*dioscorea*) and gourds, the country bean *urahi* (*dolichos lablab*), the common mallow *lafa* (*malva verticillata*) the radish *mula* (*raphanus sativus*), the sorrel *chukasag* (*rumex vesicarius*) and the bringal (*solanum melongena*). Potatoes are also grown extensively in Sadiya and on the *churs* between the Brahmaputra and the Dibru, and about half the supply of the district is obtained from this quarter.

Yield and value of crops.

The outturn of different crops varies according to the character of the season, and also to a great extent according to the character and level of the soil on which they are grown. The statement in the margin shows the normal yield per acre laid down by the Agricultural Department after a long series of experiments. These figures only represent a general mean, and even in a normal year there are many fields whose outturn varies largely from the average. The yield of rice, it may be premised, is expressed in terms of husked grain. Like the outturn, the cash value of the crop can only be approximately ascertained The prices obtained by the raiyats vary to some extent in different parts of the district, but probably average about Re. 1-12-0 per maund of unhusked grain. Assuming that unhusked paddy yields 62 per cent. of clean rice, it would appear that the value of the harvest from an acre of *sali* is about Rs 34, and from one of *ahu* Rs. 27. For mustard, the villagers generally get from Rs. 2-8 to Rs. 3 a maund so that the yield from one acre varies from Rs. 23 to Rs. 28. The price of molasses varies considerably from time to time and from place to place, and ranges from Rs. 4 to Rs. 5 per maund. The value of the yield of an acre of cane ranges accordingly from about Rs. 120 to Rs. 150.

	lbs.
Sali	1,000
Ahu	800
Mustard	750
Molasses	2,400

Floods.

South of the Brahmaputra, floods do comparatively little damage. The country near the river goes under water in the rains; but this fact is well known and duly recognized, and the pressure on the soil is so light that there is no necessity as yet for attempting to bring

these less desirable portions of the district under permanent cultivation. The spill water of the Dihing occasionally submerges the lower land in the Khowang and Jaipur mauzas, and steps have recently been taken to restore a bund which was erected in the days of native rule.

North of the river, the land is more exposed to the risk of flood. In the Sisi mauza, the Sisi, the Gai, the Gutung, and the Girgiri all overflow their banks, while a great part of the Dhakuakhana and Gohaingao mauzas, which adjoin it on the west, are submerged by the waters of the Brahmaputra and the Subansiri. Low lying land in the western part of the subdivision is liable to be overflowed by the Ranganadi, the Dikrang, and their tributaries, but considerable benefit has been derived from the protective works that have recently been constructed. The population is, however, so sparse, that no necessity has as yet arisen for attempting to occupy the less desirable portions of the north bank of the Brahmaputra.

Agriculture not intensive

Little or no attempt has as yet been made by the villagers to improve on the methods handed down to them from their forefathers, or to introduce new crops and staples. Manure is hardly ever used except for vegetables and garden crops, such as betel-nut or tobacco; or to fertilize the little plot of land on which the seeds of rice are sown. The heavy rainfall renders artificial irrigation unnecessary for the growth of rice on land of ordinary level, and no attempt is made to bring the water on to the fields, except in the case of a few villages

near some tea gardens in the Dibrugarh tahsil. Beyond selecting the best grain for seed, the villagers make little or no attempt to improve the character of the crop; and they do not always observe even this simple rule, as in Sadiya it is said that they persist in selling all the largest potatoes and planting tubers little larger than a marble. The villagers reap a rich harvest from the coolie to whom they sell rice, country vegetables, and poultry, and show little desire to experiment with new staples. The area under potatoes is said to be extending, and jute is grown in small patches near the homestead, but only for home use and not for sale. Sugarcane was at one time found to be a paying crop and was largely planted out by the Nepalese in forest land, from which they obtained a very fine return The area under cane, rose from 2,000 acres in 1894-95 to 5,400 acres in 1901-02; but the price of molasses quickly fell, and the profits of the industry began to disappear. The Deputy Commissioner considers that this lack of agricultural enterprise is a serious matter for the indigenous population. In spite of the large areas of rich soil ready for the plough, between five and six hundred thousand maunds of rice are annually imported into the district, at a cost of from fifteen to eighteen lakhs of rupees.

Live stock. Buffaloes. The buffaloes of the district belong to two distinct breeds the Assamese and the Bengali.* The Assamese are the larger of the two, and are fine upstanding

* The information given in these paragraphs is taken from a note compiled by Mr. Darrah, Director of Land Records and Agriculture in 1887, and from reports received from the local revenue officers of Lakhimpur.

animals with widely spreading horns. During the cold weather, they are generally grazed in jungly tracts, and a wild bull often attaches himself to the herd, and becomes the sire of many of the calves. This continual infusion of a good strain of blood does much to maintain the excellence of the breed. The Bengali buffalo is a smaller and less imposing animal, and does not command so high a price, a bull costing from Rs. 20 to Rs. 30; but, in Lakhimpur, the Bengali buffalo is comparatively scarce, and the fine indigenous breed still holds its own. Nepalese buffaloes are also common. They are large animals but have smaller horns and longer tails than the Assamese variety. Assamese bulls cost from Rs. 25 to Rs. 60, and cows from Rs. 50 to Rs. 60, but a Bengali cow buffalo can be purchased for Rs. 30 or 35. The price, as is only natural, is lower in North Lakhimpur and in the more out lying parts of the district, such as Jaipur and Sadiya, than in the neighbourhood of Dibrugarh.

Buffaloes rarely get anything but grass and a little salt to eat. In the cultivated portion of the district they are usually placed in charge of a small half naked boy, whose legs can hardly stretch across the massive back of the animal he bestrides, and who guides it with a nose rope. In the *chaporis*, the herd is driven out to graze in the jungle, and follows the lead of the older cows, whose whereabouts is indicated by the metal or wooden bells that are dangling from their necks. They are often trusted to return in the evening of their own accord, and a long line of animals is sometimes to be seen swimming across a channel of the Brahmaputra, which separates

them from the huts in which the graziers live. Often too, as the sun is setting, a herdsman is to be seen climbing a *simul* tree, which raises its head above the surrounding wastes of grass, to call his buffaloes home. At night each animal is fastened by a nose rope to a post, and sleeps on the bare ground. The grazing industry is not, however, of as much importance in Lakhimpur as it is in some of the lower districts of the Assam Valley. Most of the *mo-khutis*, as these grazing camps are called, are situated in the Dibrugarh tahsil, where in the cold weather there are said to be some hundred or more of them; there are a dozen near Sadiya, some ten at Sisi, and one or two in nearly every mauza in the North Lakhimpur subdivision. A cow is said to remain in milk for about ten months, and yields at the beginning from two to four seers every day. The amount gradually decreases till a month or so before the next calf comes, when it ceases altogether. The milk is very white, and rich in fatty materials, and consequently yields a large proportion of *ghi*. The cows are said to begin breeding when three years old, and to continue doing so for fifteen years; during which time they give birth on the average to about ten calves. The normal life of a buffalo is from 25 to 30 years. Age is judged by the incisor teeth.

Cattle. Half starved, under-sized, ill bred, and not unfrequently diseased, the Assamese cattle are but sorry creatures. The bullocks find it a difficult task to drag even the light native plough, and the cows yield but a minimum of milk. The causes of this degeneracy

are not entirely clear, but are probably to be found in a total indifference to laws of breeding, in absolute neglect, and partly perhaps in the want of suitable fodder in the rains. No bulls are set aside to be the sires of the herd, and the cows are generally covered by a young and immature animal, who secures the object of his desires by his superior lightness and agility. The sire is often closely related to the dam, and she, in her turn, has had her strength exhausted by being covered, when herself little more than a calf, and by subsequent breeding without the smallest intermission. The cattle are never groomed, and, when an epidemic breaks out, no attempt is made to isolate the sick. Everything, as Mr. Darrah says, is left to nature, from the moment when the most active, and therefore probably the youngest bull of the herd has succeeded in covering a cow, until the progeny, after years of work and semi-starvation, dies neglected in some unfrequented jungle. Cows generally cost from Rs. 10 to Rs. 15, though double that sum is occasionally paid; bullocks cost from Rs. 15 to Rs. 30. Cattle like buffaloes are cheaper on the north bank than they are in the more densely settled tracts south of the Brahmaputra.

Grazing ground.

Livestock are generally grazed on the rice *pathars* after the crop has been carried, and in swamps and marshes till the water rises. During the rains the villagers are said to experience some difficulty in obtaining fodder for their cattle in the neighbourhood of Dibrugarh, and in the country which is to some extent

exposed to flood, such as Khowang and Jaipur and the mauzas past which the Subansiri flows. Over the greater part of the district, population is, however, still too sparse for the question yet to have assumed an acute form; and rice straw is not as a rule collected and stored against the rainy season.

Goats and sheep and ponies. The goats are almost as degenerate as the cattle. They yield but little milk, the whole of which is taken by the kids, and are only kept for food or sacrifice. At night they are usually shut up in a small out-house with a raised floor, which is approached by a slanting board or sloping bamboo platform, as a protection against jackals. There is no indigenous breed of sheep, the animals imported do not thrive, and the total number in the district is but small. The country ponies are, if anything, even more miserable specimens than the cattle. Few of them are as much as twelve hands in height, and they possess neither pace, endurance, nor stamina. European residents are compelled to obtain all their horse flesh from Calcutta.

A census of live stock was taken in 1899, and disclosed the following results. Bulls and bullocks, 51,000; cows 43,000; bull buffaloes 9,000; cow buffaloes 10,000; young stock 58,000; sheep 1,700; goats 37,000.

Cattle disease The most common forms of cattle disease are foot and mouth disease (*chapka*), rinderpest (*guti*), a disease called *kachua*, the principal symptoms of which are flatulence and dirarhœa, cholera, (*marki*) *matikhoa*, the first symptom of which is, as the name implies, the eating of earth followed by dysentery, and *sukuna* when

the animal refuses to eat and dies after ten days or a fortnight.

Commencement of tea industry.

Reference must now be made to tea, which is by far the most important crop in Lakhimpur. Even judged by acreage, there is nearly one acre of tea for every two acres of rice; while if the standard of values is adopted, it will be found that the tea manufactured in the district is worth, even at wholesale prices, more than three times the total value of the rice crop.

The indigenous tea of Assam was first brought to the notice of Government in 1826 by Mr. C. A. Bruce, a gentleman who had been engaged in trade in the Province while it was still under native rule, and who had been sent up the Brahmaputra in command of a division of gun boats in 1824. In 1834 a committee was appointed by Government to enquire into the possibility of cultivating tea on a commercial scale, who deputed three of their numbers Drs. Wallich, McClelland, and Griffiths to visit Upper Assam. Nurseries were established, a small establishment was entertained, under the general management of Mr. Bruce, to search the jungles for plots of indigenous tea, and cultivate them when discovered, and plants and seed were brought to Assam from China. Tea makers and trained Chinese were imported in 1837, and, in the following year, some of the manufactured product was sent to England, where it met with a most favourable reception. Assam tea was regarded as a curiosity, and the first eight chests which were put up to auction fetched sums which, at the present day, seem little short of fabulous, the prices paid

ranging from 16s. to £1-14-0 a pound. These were, however, only fancy prices, and a short time afterwards, a merchant offered to purchase tea in considerable quantities at prices ranging from 1-10½d. to 2s. a lb.

First beginnings in Lakhimpur.

The following account of the first beginning of the tea industry in Lakhimpur was furnished by Capt. Bivar in 1859.*

In the district of Lakhimpore, the cultivation of the plant was first undertaken by the Government. In 1835, a few indigenous plants, taken from the forest at "Ningroo," bordering on the Singphœ country were put down on a strip of land at the "Koondil Mookh" at Suddiyah. The garden there established did not succeed. The soil, which was alluvial, was unadapted for the cultivation, and this led to a removal of material to Jaipore in the Sibsagar Division. Here the cultivation of Tea was persevered in until 1840, when, with a view to promote enterprise and the development of Tea as a resource, the Government transferred two-thirds of its Tea establishment to the Assam Tea Company. After this the Government operations were confined to a plantation in Muttock, on a spot where much indigenous Tea had been discovered, and where the soil was found peculiarly favorable to the growth of the plant.

The Government garden in the locality alluded to at Chaboah was carried on from 1840 to 1848, Over this period, whether from the Assam Tea, then a produce little known to the commercial world, not being merchantable, or from a want of skill on the part of manufacturers

* Information with regard to the early history of the tea industry has been derived from.

(1). Selections from the Records of the Government of Bengal No xxxvii. Papers relating to Tea cultivation in Assam. Calcutta. 1861.

(2). Report of the Commissioners appointed to enquire into the state and prospects of Tea cultivation in Assam, Cachar and Syhet. Calcutta, 1868.

(3). Papers regarding the Tea Industry in Bengal. Calcutta, 1873.

Letter to Commissioner No 71, dated 8th October 1859, Selections from the records of the Government of Bengal, Vol xxxvii p. 12.

the Government plantation was an unprofitable affair, in so much that it was deemed expedient to close it, and the Barri was disposed of (sold) in April 1849, to a "Chinaman" named "Among," who purchased it with all appurtenances for Rupees 952-14-8.

For three years following, there is little to notice in the annals of Tea cultivation. The Chinaman who purchased Chaboah (at present one of the finest plantations in the district) could make little of it. Lack of energy, as much as want of funds, paralyzed his operations, and in 1851, through the instrumentality of Colonel Hannay, an officer whose exertions have contributed much to the development of Tea cultivation in this part of Assam, Chaboah changed hands, and became the property of Messrs. Warren, Jenkins & Co., for a consideration of Rupees 475.

During the time referred to above, the Chinaman was not the only failure; the period was one of depression as to manufacture of Tea. The works of the Assam Tea Company, as far as their operations in this district were concerned, were all but suspended. In their Barries little was done, rank vegetation was unchecked, and clearances were stopped. And it was not until the year 1852 that a favourable turn took place in the matter of Tea cultivation, which has since opened a prospect of wealth and prosperity for the district.

In the cold season of 1852, Colonel Hannay, who had always taken a lively interest in the products of the country, and who had a small garden close to Dibroo, where he raised cotton, sugarcane and tea, &c., for experimental purposes, having been successful in the plantation of a small patch of China Tea, increased the cultivation. Having obtained land sufficient to admit of extending his operations, in 1852 Colonel Hannay cleared and planted out about ten acres of land with Tea. At the same period Messrs. Warren and Jenkins, the proprietors of Chaboah, entered upon the formation of the Maeejan Tea Barree, now a most flourishing plantation, the property of Mr. G. R. Barry, of Serajgunge, and following the example first set by Colonel Hannay, an impetus was given to the extension of Tea cultivation which has led to Tea in Luckimpore having invited the attention of capitalists and to its promising fair to render the district one of the most important divisions of Assam.

In 1859, it was said that the total area taken up for

tea in Lakhimpur was 14,000 acres, of which 1,700 acres had been planted out, and yielded 282,000 lbs. of tea. Captain Bivar estimated the average value of the tea at six annas a lb., but it is difficult to believe that the price can have been as low as this.

The boom in the early sixties.

1859 to 1863 was a period of steady but not abnormal or unwholesome expansion. In the latter year the possibility of making large fortunes out of tea attracted the attention of the speculating classes; and tea planting passed through a severe crisis, which was entirely due to the action of company promoters, who endeavoured to make money, not by manufacturing tea, but by hastily opening gardens to sell at most exorbitant prices to the credulous investor. The promulgation of the fee simple rules of 1861, was followed by a rush for land, which was aggravated by the orders of the Board of Revenue, who authorised District Officers to sell estates on a pen and ink sketch made by the applicant, before they had been properly surveyed and demarcated. Land thus obtained was hastily cleared of jungle, a few plants, the majority of which soon died, were hurriedly put out, and the place was sold to the unsuspecting public as a flourishing tea garden. To such a pitch was this procedure carried that there is one case on record, in which a manager received instructions from London, to clear and plant a certain area of waste land for delivery to a Company to whom it had been already sold as a tea plantation.

Scarcity of labour.

Many of the planters, and some District Officers in Assam, thought that it was the duty of Government

to stimulate the slothful Assamese, and drive them to work on the plantations, by enhancing the land revenue assessment. This point of view did not commend itself to the Commissioner, Colonel Jenkins, who, while admitting that there was great want of industry and energy amongst the Assamese, declined to check their social improvement, or to reduce them to the unaccustomed misery of hard work, simply to provide the planters with cheap and abundant labour.*

It naturally followed that in spite of the high prices offered, local labour was not obtainable in sufficient quantities, and coolies, generally of the most miserable description, were sent up from Calcutta. The mortality in the depôts and on the journey was appalling. In the four years 1864 to 1867, the annual mortality in the largest depot ranged from 36 to 115 per cent. of the average daily strength; the latter enormous rate being calculated on a daily average of no less than 458 souls † Between 1863 and 1868, 54,352 coolies were imported to Assam, 1,712 of whom died *en route*. Even when the garden was reached, the mortality was generally high, and was sometimes quite appalling. In the Report of the Commissioners appointed to enquire into the state and prospects of tea cultivation, details are given for seven gardens in Upper Assam, on which the recorded mortality for half the year only in 1865 ranged from 16 to 39 per cent.

The returns submitted were declared by the Commissioners to be unsatisfactory, but in 1866, 4,366 deaths were

* Letter No. 111 dated 24th October 1839.

† Report of the Commissioners, p. 28.

recorded in Upper Assam, which was equivalent to a death-rate of 180 per mille on the total number remaining plus the total number of deaths. These days of high mortality have happily now passed away. During the ten years ending with 1889, the average annual mortality amongst adult coolies was 48 per mille, and during the next decade it sank to 42. In 1901 it was less than 31 per mille. It may, perhaps, be thought that even these are high death rates for a population of adults, and in comparision with those recorded in England this is no doubt the case. But comparisons of this sort are most misleading, as, though the death rate in Assam is very imperfectly recorded, it is certain that it largely exceeds the rate for the more civilized countries of Western Europe. It must, moreover, be borne in mind that many of the coolies are recruited from the ranks of the physically unfit, that they suffer from the effects of a change of climate, and that, when working in new clearances, they are exposed to especially unfavourable conditions. The Commisioners * in 1868 considered that the Bhutan field force furnished a fair analogy to garden coolies, and pointed out that the death rate amongst that force was 160 per mille, or very little less than the death rate even in those days on Assam tea gardens. The planters spare neither trouble nor expense in their efforts to preserve the health of their employees; and many of the weakly ones who die, would probably have lived no longer had they been allowed to remain in their own homes.

* P. 56 of their report

During the tea boom, large sums were paid for labour and for seed, land which was little better than jungle was sold for preposterous prices, and the tea companies which were formed under these unfavourable conditions soon collapsed. 1866, 1867, and 1868 were years of great depression. Mr. A. C. Campbell, in a note written in 1873, describes how young men who had been engaged in England, were turned adrift when the collapse came "in a most inhospitable country without a penny or a friend; some died, others had literally to beg their way out of Assam, most had to regret impaired constitutions, and all the loss of some of the best years of their life." In 1869 affairs began to take a more favourable turn. It was seen that properly managed gardens could be worked at a satisfactory profit, and that the estates of the bubble companies, which had been bought for small prices after the great crash were doing well in the hands of their new owners. Since 1870, there has been an enormous expansion of the industry, and while the area under cultivation and the outturn have alike increased, the cost of production and the price obtained have steadily diminished. Like other industries, tea has experienced periods of prosperity and depression; but there has been no such boom with its inevitable collapse as occurred in the early sixties.

Collapse in 1866.

Statistics for the early years during which the industry was developing are not readily available, and are too inaccurate to deserve attention. In 1874, it is said that there were 11,680 acres in bearing, which yielded *1,812,000* lbs. of manufactured tea. In 1882

Expansion of the industry.

the area under mature plant was reported to be 32,952 acres; but the inaccuracy of the returns can be judged from the fact, that in 1884 it suddenly dropped from 32,897 to 25,881 acres. The cultivated area kept steadily expanding till 1896, when there were 48,152 acres under plant, with an outturn of 19,486,000 lbs. The Industry was at that time enjoying one of its periodical waves of prosperity, and capital was readily invested in its extension and development. In 1900, the total area under tea was 67,509 acres and the outturn 25,698,000 lbs Unfortunately since then it has suffered a serious check, which was partly due to the unduly rapid increase in the out put, partly to the growing difficulty in obtaining labour, partly to the very high duty imposed on tea in England. Figures for subsequent years will be found in Table VII.

Labour supply. The supply of local labour is very limited, and the plantations have to be worked by coolies imported from other parts of India. In the ten years ending with 1890, no less than 92,000 labourers were brought up to the gardens, and in the next decade the number amounted to 149,000. The largest numbers are obtained in times of famine, the two record years being 1897 with 27,000, and 1900 with 18,400. The following abstract shows the areas from which the labour force in 1901 had been recruited.

	Number.	Percentage.
Total	1,30,256	—
Assam	26,879	21
Chota Nagpur	51.553	40
Other parts of Bengal	26,152	20
United Provinces	2,[illegible]62	2
Central Provinces	17,246	13
Madras	1,945	2

The great majority of those born in Assam are the children of foreigners born after they had migrated to this Province. Natives of the United Provinces do not do well in Lakhimpur, and only a few of them have been imported to the district; and there is a large proportion of immigrants from Chota Nagpur, whence most of the finest coolies are obtained.

The labourers.

The journey from the recruiting districts is troublesome and expensive, the class of persons capable of working successfully in the damp climate of Assam is limited, and of recent years the supply of labour available has not been sufficient to satisfy the requirements of the planters. Special Acts have been passed to regulate the relations between the employers and their labour force. Careful provision is made for the welfare of the coolie. He is housed in neat and comfortable lines, he is provided with an excellent water supply, generally drawn from masonry wells, and when sick, he is cared for in a comfortable hospital by a native doctor working under the supervision of a European medical man. The provision of all these comforts and the importation of the labourers themselves cost large sums of money, which no one would be willing to expend without some guarantee that the coolies, when imported, would consent to remain on the plantation. This protection is afforded by the law, (Act VI of 1901) which lays down that a labourer, provided that he is well-treated, must not leave the garden to which he is indentured before the expiry of his contract, unless he chooses to redeem it by a money payment. The simpler Act (XIII of 1859), which em-

powers a magistrate to order a labourer who has taken an advance, to complete the work on account of which the advance was given, is also very generally used. There are few districts in India where the tea industry is in a more flourishing condition than it is in Lakhimpur, and the prosperity of the proprietors reacts favourably upon the condition of the labourers. Wages are good, the climate is healthy, and there is an abundance of fertile land still lying waste. The cooly who has served his time can easily obtain land on which to settle down, and finds a market either for his surplus produce or his leisure hours at his very doors; as the demand for rice, vegetables, poultry, and unskilled labour is out of all proportion to the supply.

Site of tea gardens.

Most of the gardens are situated a little to the east of Dibrugarh, and along the railway line as far as Talap. North of the Brahmaputra, gardens have been opened on the high lands near the hills to the east of North Lakhimpur. Further information with regard to the area, size, and population of each garden in the district will be found in tabular form in appendix A.

Soil required for tea.

A friable red loam is the soil that proves most suitable for tea. The plant requires a heavy rainfall, but anything in the shape of water-logging is most prejudicial to its growth, and gardens should only be planted out on land which can be well drained. Land which, in it's natural state, is covered with tree forest is usually considered the most suitable, as the absence of timber generally shows, either that the place is liable to flood, or that the soil is sandy, or that the rainfall is deficient. But in

Lakhimpur many of the finest gardens, such as those owned by the Dumduma and Sadiya Road Tea Companys, have been planted out on a light soil covered by bamboo jungle.

Four distinct varieties of wild tea are recognised: **Varieties of plant.** Assam indigenous, which has a leaf from 6 to $7\frac{3}{4}$ inches in length by $2\frac{3}{8}$ to $2\frac{7}{8}$ inches in width; the Manipur or Burma indigenous with a larger, darker, and coarser leaf than the preceding variety; Lushai or Cachar indigenous, whose mature leaf is from 12 to 14 inches long, and from 6 to $7\frac{1}{2}$ inches wide; and the Naga indigenous which has a long and narrow leaf. In addition to these four varieties there is the China plant, and different kinds of hybrids. The China tea is a squat and bushy shrub with small leaves, which gives a lower yield per acre than the other kinds. It is many years since China seed was planted out in new clearances, and considerable areas covered by this plant have been abandoned. In its natural state the indigenous plant attains to the dimensions of a tree, varying from 20 to 50 feet in height, though its girth seldom exceeds two feet. It has a vigorous growth and yields a large outturn of fine flavoured tea, but is delicate when young. Of the hybrid variety there are many qualities ranging from nearly pure indigenous to nearly pure China. A plant with a very small admixture of China is usually preferred, as this imparts the hardiness, the want of which is the one defect in the indigenous variety. During the boom in the nineties, the price of good tea seed rose to as much as Rs. 150 per maund;

but this was followed by a slump, when but a third of that sum became obtainable. The best seed in the district is obtained from the Hukanguri garden and now (1905) commands from Rs. 70 to Rs. 100 per maund, but inferior seed from village gardens is still practically unsaleable.

System of cultivation.

The seed is planted in nursery beds in December and January and kept under shade till the young plants are three or four inches above the ground. Transplanting goes on between April and July, whenever there is rain, the plants being usually placed from four to five feet apart. During the first two years of their life, little more is required than to keep the plantation clear of weeds. By this time the plants are from two to four feet high, and at the end of the rains they are pruned down to fifteen inches or a foot to encourage lateral growth, In the third year the plant can be lightly plucked over, but the yield of leaf is small. Pruning is continued every year. Only about two inches are left of the wood formed since the previous pruning, and any unhealthy or stunted branches are removed. As an extreme remedy, old plants, in which there is a large proportion of gnarled and twisted wood, are sawn off level with the ground, and fresh shoots are allowed to spring from the root itself. During the rains the garden is hoed over several times, in order to render the soil permeable both to rain water and the roots of the bush At the end of the rains the ground is hoed up to the depth of 8 or 9 inches. The object of this is to protect the land from drought, as the hoed up soil prevents the evaporation of water from the

lower strata. It also adds to the fertility of the land by exposing it to air, light, and changes in temperature. Manure has hitherto been little used. Oil cake and cowdung are sometimes spread about the plants, and exhausted land is sometimes top-dressed with rich soil from a neighbouring marsh. The cost of these operations is considerable and they are not invariably successful from the pecuniary point of view. Matikalai (*phaseolus radiatus*) is often sown amongst the bushes and hoed in as a green manure.

Plucking begins in April, and is continued till the beginning of December. The bud and the two top leaves are taken from each shoot, but fresh leaves soon appear, and in about five weeks time the shoot is ready to be plucked again. This throwing out of new leaves is termed a "flush," and there are usually six or seven full "flushes" in a season; though each bush is picked over every ten days or so, as the twigs develop at different times. The plucking is usually done by women and children, while the men are engaged in hoeing up the ground around the plants. The plant is liable to be attacked by a large number of pests, the best known being the tea mosquito or blight, the green fly, and the red spider. A full account of these pests will be found in "The pests and blights of the tea plant" by Watt and Mann, Calcutta 1903.

System of manufacture.

When the leaf has been taken to the factory it is spread out in thin layers on trays and allowed to wither. In fine weather the process takes about 18 hours, but if it is cold and wet 36 hours may elapse before the leaf

is ready. When the leaf has been properly withered it is placed in the rolling machines. The object of rolling is to break up the cellular matter and liberate the juices, and to give a twist to the leaf. Rolling takes about three quarters of an hour, and after this the leaf is placed in a cool room for about 3 hours to ferment. It is then placed on trays in the firing machines, through which hot air is driven, until the last trace of moisture has been expelled, and the tea is crisp to the touch. The leaf is then passed through sieves of varying degrees of fineness, and the tea sorted into different grades. The best and most expensive quality is called broken orange pekoe, and is made from the bud or tip, which contains all the good qualities of tea in a more concentrated form than any of the other leaves, is stronger, and has a more delicate flavour. The other grades, which are differentiated by the size of the mesh through which they pass, are Orange Pekoe, Broken Pekoe, Pekoe, Souchong, and Fannings. After the tea has been sorted, it is fired once more to remove any moisture it may have absorbed from the surrounding atmosphere, and is packed in lead lined boxes while it is still warm. Tea loses largely in weight during the process of manufacture, and about four pounds of green leaf are required to produce one pound of the finished article.

Outturn and Prices. The character of the outturn depends largely upon the season, but still more upon the garden and the system of manufacture followed. In 1868 the Commissioner estimated that the average outturn was about 240 lbs. per acre; but this estimate was probably too low, as the

average yield in Lakhimpur during the five years ending with 1903 was 455 lbs, per acre. The introduction of machinery, and the improvement of the general system of cultivation and management have rendered it possible to effect a large reduction in the cost of the tea when placed upon the market. In 1868 it was calculated that tea must be sold at two shillings a lb to yield a profit. Twenty years later the average price obtained by tea from the Brahmaputra Valley was 8 as. 2 pies, and, though in 1894 it rose to 10 as 5 pies, in 1898 it dropped to 6 as. 9 pies, and has since remained below that figure. Separate details are not recorded for the Lakhimpur district, but the average price obtained is, probably above the average for the valley as a whole.

The forests of Lakhimpur fall into two main classes, the reserved forests, which in 1902-03, covered an area of 340 square miles, and the unclassed state forests, which in the same year occupied the enormous area of 3,099 square miles. Unclassed state forest is, however, simply Government waste land, and does not necessarily possess any of the characteristics which are usually associated with the expression forest. It may be a sandy *chur*, or a huge expanse of low lying land covered with high grass and reeds and almost totally destitute of trees. It may be a small piece of arable land, which has been resigned by its former holder, and has not yet been settled with any other person; or it may be, what its name would naturally suggest, *i. e.*, actual tree forest. It is impossible to give even the roughest estimate of the proportion of unclassed state forest, which is actually Forests.

under timber, but where the total area is so enormous it is obvious that, in a country with a heavy rainfall like Assam, the area covered with trees must be considerable.

System of management. The management of the Government forests is generally entrusted to a Deputy or Assistant Conservator. The unclassed state forests are, however, under the immediate control of the local revenue officials, who issue permits to settlment holders, under which they are allowed to remove a certain quantity of forest produce for their own requirements free of royalty. *

The trees are generally converted into logs in the forest, and dragged by elephants to the nearest river, whence they are floated down to the place where they are required. The statement annexed to this chapter gives in a condensed form details with regard to the situation, area, trade route, and market centre for each of the reserved forests in the district. These forests are all composed of evergreen trees, and the largest of them are situated near the Naga Hills, along the southern, boundary of the district. In the true sense of the word they are reserves, and, as yet, the requirements of the people are almost entirely met from unclassed state forests. This fact is clearly brought out by Table VIII, from which it appears that the total revenue from the

* The quantity allowed is 4 unreserved trees, 400 bamboos, 10 bundles of canes and 200 maunds of firewood, but there is in practice little check upon the qnantity actually taken, and the question of abolishing the permit system and allowing villagers to take all that they need for their own use is under consideration. No restriction is imposed on the removal of thatching grass either for home consumption or for sale.

reserves in 1902-03 was only Rs. 668, fivesixths of which were obtained from the Jakai forest; while the huge Dihing reserve yielded a revenue of about 5 annas the square mile. The Jaipur forest is, however, the only reserve in which the traders wish to carry on their operations, and work is not encouraged there, as it contains little large timber of the better kind, though there is a fine young forest of Nahor, which if properly treated should be a valuable property at no distant date.

Cane and rubber. There are two minor forest products which are of considerable importance. The right to collect cane in the Government forests is put up to auction, and in 1902-03 the cane monopoly for the next five years was sold for no less a sum than Rs. 93,000. A duty of Rs. 17 per seer is levied on all rubber imported from the hills beyond the frontier, and the receipts under this head amounted to Rs. 39,000 in 1903-04. There is very little rubber remaining in the district outside the Government reserves, as the trees have been killed out by overtapping; but within these forests there are presumably a considerable number of trees, as lessees are willing to pay as much as Rs. 7,500 per annum for the right of working there, in addition to the royalty of Rs. 17 per maund of rubber found. The yield of timber and fuel, and the receipts and expenditure of the forest department are shewn in Table IX.

Timber trees. For timber required for sale, royalty is paid at the rate of Rs. 6 for each reserved tree, or 4 annas a cubic foot whichever is less, while for unreserved trees the rate is one anna a cubic foot, with a maximum of Rs. 2 for the

tree. The most valuable timber trees in the district, all of which fall in the category of reserved trees, are Nahor *(mesua ferrea)* Uriam *(bischoffia javanica)* Makai *(shorea assamica)* Hollock *(terminalia bellerica)* Gundroi *(cinnamomum glanduliferum)* Sam *(artocarpus chaplasha)* India Rubber *(ficus elastica)* and Khakan *(duabanga soneratioides)*. The Nahor has a very hard wood and is largely used for sleepers and scantlings, Hollock is used for scantlings and boats, and Simul *(bombax malabaricum)*, which grows amongst the stretches of jungles grass in low lying land, is converted into tea boxes.

Timber trade. There are five saw mills in Lakhimpur. The Sisi mills, which employ some 350 hands, are situated in the Sisi mauza on the north bank of the Brahmaputra opposite Dibrugarh, and the Mekhlanadi and Halkatta saw mills in the Dibrugarh mauza. The Gharunia Sisi mills are in Larua mauza, and the Railway saw mills at Margherita. The tea box industry is, however, to some extent hampered by the preference which the agents in Calcutta have for boxes of foreign manufacture. Almost the whole of the timber trade is of a local character, as prior to the construction of the Assam Bengal Railway, the forests of Lakhimpur were very remote from the outside world The tea boxes find a ready sale locally, and are sent to gardens lower down the river. Sleepers are purchased by the railway companies, and scantlings and other timber by the Municipality and Local Boards.

List of Reserves ten square miles and more in area.

Name of reserves.	Situation and character of soil.	Area (square miles.)	Date of constitution.	Routes for extraction of produce.	Market centres.
Upper Dihing	Low hills and plain, in south east corner of district.	144	1888	Assam Railways and Trading Coy's. Railway Line from 45th to 55th miles from Dibrugarh.	Dibrugarh and Margherita.
Dibru ...	Situated on the south bank of the Brahmaputra 20 miles east of Dibrugarh.	88	1890	Brahmaputra and Dibru rivers.	Dibrugarh.
Jaipur ...	Low hills and plains between Makum and Jaipur.	39	1888	Dihing river and possibly the Assam Bengal Railway about 7 miles distant down the Dihing river.	Jaipur.
Dihingmukh ..	On the south bank of Brahmaputra at its junction with Dihing river—12 miles south west of Dibrugarh.	21	1887	Dihing and Brahmaputra rivers.	Dibrugarh.
Jakai ...	Six miles south of Dibrugarh—north of the Sibsagar road.	19	1887	Sibsagar cart road from Dibrugarh.	Dibrugarh.
Kadam ...	In the North Lakhimpur subdivision, west of the Subansiri river and north of the trunk road.	21	1888	North trunk road and the Subansiri river.	North Lakhimpur.

CHAPTER VI.

INDUSTRIES.

Coal—Oil—Iron—Gold—Lime—Silk—Pottery—Brass and bell metal—Weaving—Fishing.

Coal. Early workings. The existence of coal in Upper Assam has been known from the earliest period of the British occupation of the Province. In 1825, Lieutenant Wilcox reported that coal was found near Barhat, on the Disang river; and in 1828, Mr. Bruce quarried some 5,000 maunds near Safrai, which were sent to Calcutta, and pronounced to be equal to English coal and the best ever found in India. Experiments continued to be made in a desultory manner, and in 1840, the Assam Tea Company were actually working the coal measures near Jaipur. In 1861, a contractor entered into an arrangement with Government for a period of three years, under which he undertook to keep not less than 1,000 maunds of coal in store at Dikhomukh, Tezpur, and Gauhati, for which he was to receive 10 annas a maund at the first place, 13 annas at the second, and 14 annas at the third.

On the expiry of this contract, attempts were made to attract capital to the industry. The coal fields were examined and reported* on by Mr. Medlicott in 1864-65, and in 1866, a notification was issued offering grants of coal bearing strata to the public. The area of a single grant was not to exceed 640 acres, a surface rent of six annas per acre but no royalty was charged, and the land was liable to resumption if operations were not commenced within three years of the date on which the grant was made, or if work was suspended, for five years or more. Seven grants in all were made, to Mr. Goodenough, who interested himself in the petroleum industry, and to other gentlemen, but very little work was done.† All of these grants were in consequence resumed, with the exception of the Namdang and Tirap grants, which were purchased by Mr. Haly in 1871, and ultimately sold by him to the Assam Railways and Trading Company in 1892.‡ In 1875, shortly after the erection of Assam into a separate Administration, rules were framed by the Chief Commissioner for the lease of sites for coal mining. The size of the grant was limited to 50 acres, and the holding of more than one site in the same interest

* Mr. Medlicott's report will be found in the memoirs of the Geological Survey of India, Vol. IV, Part 3.

† Less than 600 tons of coal were sold from Mr. Haly's grants in the three and a half years ending with July 1870.

‡ There was some question (1) as to Mr. Haly's title to hold this land at all and (2) as to his title to hold the grants on a surface rent, free of all royalty on the coal. It was decided in 1893, that whatever may have been the original terms of the grant, Government owing to "waiver and acquiesence" had no longer valid ground for disputing these claims. The whole question is discussed at length in Assam Secretariat R. A. Prgs. Jan. 1894, Nos. 76-123.

was prohibited. These provisions were introduced as a safeguard against the creation of a monopoly, but the opinion expressed at the time that, the terms would not prove sufficiently attractive, was found to be correct.

Report by Mr. Mallet. In 1876, Mr. Mallet of the Geological Survey Department examined the coal deposits of the Naga Hills, and reported, that the Makum field in all probability contained fully eighteen million tons of coal, of which at least one half must be easily procurable.*

Mr. Mallet divided the coal measures of Lakhimpur into two fields, the Makum and the Jaipur. The most easterly point to which he traced the Makum field was the south east of Kerimgao. The Dirak river was the furthest point to the west at which coal had been discovered, so that the extreme points between which coal had actually been found were 13 miles apart, though the actual length of the field was probably somewhat greater. The coal seams are imbedded in brownish grey shales and sandstones, and some of them are of considerable thickness. South east of the Leap Nadi, there is a seam of solid coal 25 feet thick, but this seems nothing in comparison with the seam in the valley of the Namdang, which consists of a solid cliff of coal, no less than one hundred feet in height. The Jaipur field is situated in the Tipam hills to the south and east of Jaipur, the most northerly point at which coal has actually been found being the Tipam garden, though it is probable, that the coal bearing strata extend to the

* Mr. Mallet's report wiil be fonnd in the memoirs of the Geological Survey of India, Vol. XII Part 2.

northern extremity of the range. Only a small part of the measures appears above the alluvium, and nearly all the coal examined by Mr. Mallet was found to be of a crumbly character The total quantity of marketable coal was estimated by him to be perhaps ten million tons ; but the data on which this estimate was formed were admittedly imperfect, and though there is undoubtedly a large quantity of coal in this field, it is impossible to express its cubical content with any approach to accuracy. No attempt is made to work this field at the present day.

Offer of more liberal terms by Government.

The Chief Commissioner was by this time persuaded, that if these valuable deposits were to be opened up by private enterprise, more favourable terms would have to be offered to the promoters of the undertaking. The arguments in favour of this view were summarised as follows, in his letter No. 704 dated the 22nd March, 1879, to the Government of India.

"The rules for leasing these coal sites were sanctioned by the Government of India, but they were sanctioned experimentally only for three years, and the Government of India at the time expressed doubt, whether they would not be found to repel rather than to attract capital. The leading points in the rules are the limitation of area to 50 acres, the revenue being three annas per acre, and the royalty eight annas per ton. It is certain that, uuder these rules, no single application for a coal lease has been made ; and unless the indispensable preliminary of providing cheap and certain communication from the mines to the river is first undertaken by Government, it is certain that no lease will be so applied for. It can pay no one whose area is restricted to 50 acres, to undergo the requisite risks, with the certainty that competitors will profit by his failures ; nor could it pay such individual speculators to attempt the improvement of communica-

tions, the immediate effect of which would be, to introduce competitors on more favourable conditions than their own. Unless Government are prepared themselves to provide these means of communication, he is convinced that, the leases can only be profitably worked if sufficient inducement is given to a company to provide their own means of communication; and he inclines to believe that in practice, the only sufficient inducement will be a virtual monopoly of one or the other of the coal fields."

Development of Margherita. This view was accepted by the Government of India and the Secretary of State; and in July 1881, a lease was issued to Messrs. Shaw Finlayson and Company, for not more than 30 square miles in the Makum coal fields. The term of the lease was 20 years, and rent was charged at the rate of Rs. 50 per square mile, merging into a royalty of 3 annas per ton of coal quarried. A branch line was constructed connecting the collieries with the Dibru-Sadiya railway, and thus with the Brahmaputra, and work was begun on an extensive scale. In 1903, a lease for thirty years, on terms similar to those laid down in the original indenture, was granted to the Company for four square miles of land.

The result of a more liberal policy and of the enterprise of British capitalists, has been unusually gratifying. A quarter of a century ago, the hills near Margherita, and a belt of country at their feet from fifteen to twenty miles in width, were clothed with dense tree forest, the home of nothing more interesting and useful than wild beasts. Much of this forest still remains, and on either side of the railway between Makum Junction and Powai, there is hardly anything but dense tree jungle to be seen. But on the banks of the Dihing an extra-

ordinary change has taken place. The forest has been felled, the Makum garden has been put out with nearly 2,000 acres of the finest tea, a flourishing bazar has been established, and even the ubiquitous kaiya is to be found, eager here as everywhere to buy and sell. Columns of smoke curl up into the air from the saw mills and the railway workshops, and the lower hills are dotted with fine bungalows, surrounded with trim lawns and gardens. Coolies who have served in the mines, or on the tea plantation, have settled down and begun to cultivate the land, and where formerly there was a howling wilderness, there are now fields of sugarcane and rice.

The Dihing is spanned by a massive iron girder bridge, over two hundred yards in length, supported on brick pillars, and the view of the settlement from the further bank is charming, both to the lover of the picturesque and to the devotee of material progress. In the near foreground, the station is shut in by a wall of noble trees, while close behind, the hills rise in sharp serrated ridges, their sides and summits alike crowned with dense tropical forest. In front flows the Dihing, a considerable river at all seasons of the year, and between it and the forest, there is the thriving little settlement. The smoke and sounds, which are so irksome in a manufacturing town in England, here, but serve to remind the visitor of the conquest of natural obstacles, and of the kindly works of man in the midst of these primeval jungles. To the east again, the view is bounded by higher hills, whose snow crowned summits stand out in all their vivid purity in the clear air.

The collieries.

The collieries are situated in a line along the lower hills about four miles south of Margherita. In the Namdang grant, the coal can be seen in a solid cliff over one hundred feet in height, the very thickness of the seam rendering it somewhat difficult to work. At Tikak, a short distance further on, coal is quarried near the summit of the hill, and further on again, there are the Ledo Valley, and Upper Ledo collieries. Work was begun at the Tikak, Upper Ledo, and Ledo Valley mines in 1882, and on the Namdang, and Tirap grants, which formerly belonged to Mr. Haly, and which pay a small dead rent in place of royalty, in 1897 and 1898. The coolies employed in the mines are housed in lines in close proximity to their work, but in this direction there has at present been little extension of cultivation. The land they say is 'sour,' and men, who have served their time, prefer to settle down near Margherita. For colliery work there is no local labour available, and coolies have to be brought at great expense from other parts of India. At first, as was only natural, the settlement was far from healthy, and the death rate was considerable. But the gradual extension of the clearings, and the elaborate precautions taken to safeguard the labourers' health, have borne good effects, and at the present day the mortality is not unusually high. In 1903, there were 1,200 coolies working in the mines under the supervision of nine Europeans, and the total output was 239,000 tons of coal. The coal is fairly hard and compact, but after extraction and exposure to the air, it breaks up into small pieces, owing to lamination and jointing. It cakes

freely, and is an excellent coal for steaming purposes, and also makes a very good coke. Very little goes to Calcutta, but it supplies all the wants of the steamer companies, a large number of tea gardens in both the Assam and Surma Valleys, and the Assam Bengal and Dacca Mymensingh Railways Narayanganj also takes a large quantity of coal. The mines, it should be added, are worked on the square or panel system, a modification of what is known in England as the pillar and stall. The capital actually invested in the collieries is about £360,000; but the collieries are only one of the undertakings managed by the Assam Railways and Trading Company, which has a total called up capital of about £1,000,000.

The existence of petroleum in Upper Assam was discovered as long ago as 1828, by Lieutenant Wilcox and Mr. C. A. Bruce; and in 1837, Major White, reported that he had found several oil springs on the Namrup river. The first lease of oil bearing strata was given to Mr. Wagentriber, a tea planter of the Lakhimpur district, who, in 1854, was granted certain rights over the oil springs at Makum, and at Bapu Pung in the neighbourhood. No steps were taken by this gentlemen to develop his property, and on the expiry of his lease, a concession was granted to Mr. Goodenough, of the firm of McKillop, Stewart, and Company to bore for oil over an area of about 700 square miles, between the Buri and Noa Dihings. The area covered by the concession was sufficiently extensive, but the rights conferred were not exclusive, and permission was reserved for other Oil.

persons to bore for oil, provided that they did not do so within one mile of works set up by Mr Goodenough and kept in actual operation. Borings were begun at Nahor Pung and Makum, and plant valued at about half a lakh of rupees, was set up near the wells; but unfortunately Mr. Goodenough died very shortly after the inception of the operations, and work was then discontinued.

Formation of the Assam Oil Company

Subsequently certain rights were granted to Messrs. Balmer Laurie and Company, to a syndicate of private gentlemen, and to the Assam Railways and Trading Company, a company who have done so much to exploit the mineral resources of the district. Borings were made, considerable sums of money were expended, and small refineries of an experimental character were erected by the Assam Railways and Trading Company, at first at Digboi in 1893, and later on at Margherita in 1896. In 1900, a company with a capital of £310,000 was formed with the object of taking over the oil concessions and plant of the syndicate and of the Assam Railways and Trading Company, and of developing the industry in a really satisfactory manner. It was found that the wells near Digboi yielded the most favourable results, and it was decided to erect a refinery in their immediate neighbourhood. Digboi at that time was nothing more than a desolate and unhealthy forest. Apart from the wells and railway line, there were no signs of human habitation or the handiwork of man, and on every side stretched mile upon mile of pathless jungle. A large refinery was

erected near the oil bearing strata, the forest in the neighbourhood was felled, and the transformation of a dense unwholesome jungle into a thriving settlement, which has been so successfully carried out at Margherita, is now to be seen in progress at Digboi. The lower hills are crowned with the bungalows of the European staff, and the smoke pouring from the chimneys of the refinery, and all the hum and bustle of the factory, seem curiously out of place in the middle of these solitudes.

The raw material.

The oil is found in three layers or stratas, the first between 500 and 600 feet below the surface, the second at about 1,000 feet, and the third at from 1,300 to 1,500 feet. Over each well stands a huge derrick, some sixty feet in height, its gaunt sides covered with the leaves of the tokow plant (*livistonia jenkinsonia*), the whole structure, leaves and all, being of a dreary greasy black, the results of the spouting of the oil. The topmost lengths of steel casing put down the wells are as much as fourteen inches in diameter, but as the well progresses they gradually decrease in size, till at the bottom they are often not more than four and a half inches wide. From the top of the wells, long metal pipes lead to a central tank, creeping across the inequalities of the hills like monstrous snakes, and finally rearing their heads against the iron wall of the tank, to vomit their contents into the seething mass below. Vomit is a literal description of the way in which they discharge themselves of their burden, which come rushing out in short bursts and gasps, a curious

pitchy mass like greenish mud, dusted over with a red powder from the condensing gas. There are altogether twenty-two wells near Digboi, but some five or six have been abandoned as they were not sunk to a sufficient depth. The deepest well goes down no less than 1865 feet, but does not yield as much oil as some that are little more than half as deep.

System of manufacture

The crude oil is conveyed by pipes into two huge storage tanks, each of which contains some 60,000 gallons, and is then subjected to various processes of distillation. The vapour that comes off from the first boiler condenses into oil which contains naptha and petrol, and the residue passes by gravitation into a second boiler. The vapour that comes off from the second boiler condenses into an impure form of kerosine (a), and the residue is carried to a pot still which is gradually heated till it becomes red hot. The vapour which is given off during this process condenses into a heavy oil containing paraffin wax (b), while the residue bakes into a hard coke, which is broken up and removed from the still after it has cooled. The impure kerosine (a) is then mixed with the heavy oil (b), and the product is treated with sulphuric acid and caustic soda and redistilled. The vapour that comes off condenses into kerosine oil, which, after being again treated with sulphuric acid and caustic soda, is ready for use, while the residue is heated in a pot still till it gives off a heavy oil containing wax. This oil is then passed through huge drums with a refrigerating chamber in the centre, and the cold causes the wax to crystallize, so that the oil

and wax leave the drums in a sort of buttery mass. This semi solid product is then forced through layer after layer of cloth which collects the wax and allows the oil to run off. The oil is then treated with sulphuric acid and caustic soda, and redistilled. The first vapour to come off is a light burning oil which is mixed with the impure kerosine (a), the second product is an intermediate or fuel oil containing paraffin, the third a lubricating oil. The lubricating oil is still, however, carrying too much wax, so once more it is passed through the refrigerating drums and layers of cloth, and it is only then, after it has been concentrated to remove the higher oils, that it is fit for use.

The wax is sweated in steam chambers to remove the oil and part of the colouring matter, mixed with animal black, boiled, passed through presses to still further clean it, and then cooled in trays. Part of it is shipped to England thus in bulk, and part is manufactured into candles. The total output in 1903, was 63 tons of candles, 573 tons of paraffin wax and 1,200,000 gallons of kerosine oil. Nearly all of the oil is sold locally in Assam or in the neighbouring districts of Bengal. A list of the different places, in which oil had at that time been found, is given in a paper published in 1876, in the memoirs of the Geological Survey of India Vol. XII Part 2 page 89.

Clay iron stones occur in the coal measures, and as much as 40 per cent. of iron, has been found in a sample obtained from the neighbourhood of Tirugao in Sibsagar. According to Mr. Mallet, there is a large quantity Iron.

of ore scattered through the measures, and enough could be procured to keep any number of native furnaces going. It is, however, more than doubtful whether the supply obtained in any one locality would be sufficient to feed an English blast furnace.* Under native rule there was a considerable iron industry in Upper Assam. But according to Colonel Hannay, the workers, who numbered about 3,000 during the zenith of the Ahom power, did not exceed 100 after the Burmese invasion; and iron smelting is, at present, a lost art in Lakhimpur. Specimens of iron pyrites have been obtained from the Mishmi Hills, but inaccessibility, lack of labour, and the uncivilized character of the hill men render it quite impossible to work these deposits.

Gold. Native methods. Gold dust is found in the Brahmaputra and its tributaries, and under Ahom rule certain communities were compelled to furnish the Raja with this precious metal. The amount obtained is said to have been considerable, and Rajeswar Singh (1751-1769. A. D.) is reported to have taken as much as 2,500 oz. of gold every year from the people of Upper Assam.†

The following system was usually employed. The gold washers selected a gravelly shore opposite to a falling bank, where the current flowed fast round a corner. The stream was diverted over the selected spot, till the surface sand had been washed away and the gravelly strata exposed, and was then turned back into its

* Memoirs of the Geological Survey of India. Vol XII, Pt. 2, P. 93.

† J. A. S. B. Vol 7. P. 621. It is from this source that the following description of the system employed by the gold washers has been taken.

former channel. The auriferous sand was thrown on to a bamboo strainer placed over a wooden trough, and water was poured over it, the trough being tilted at a slight angle, so that the water and lighter substances ran off, while the gold and the heavier matter remained at the bottom. When a sufficient quantity of this matter had been collected, it was placed in another vessel, and quicksilver added to attract the grains of gold. The mixture of quicksilver and gold was then put in a shell and placed on a fire. The shell was converted into lime, the quicksilver evaporated, and the gold was left lying in the lime. The lime and gold were then thrown into a vessel full of water, when the precious metal at once sank to the bottom.

European investigations.

In 1852, Capt Dalton reported that the sands of the Sisi river were highly auriferous. Twenty grains of gold was not an unusual return on one day's labour by three men, who between them could wash about a ton of rubble; and 11 grains were extracted from 22 cwt of gravel in his presence. This report was confirmed by Mr. C. C. Campbell, who declared that the yield was considerable, though the profits were absorbed by the purchaser of the gold mahal, and the people who advanced the capital to the actual washers.* In 1882 a ten years lease was granted to a European of the right to wash for gold in the Subansiri and its tributaries. It was hoped that he would make some attempt to ascertain the source from which the precious metal was

* Note recorded by Mr. T. G. Murray in 1877. R A. Progs. August 1893, Nos 46-74.

derived, and the possibilities of developing the industry; but nothing of the kind was done, and an application for the renewal of the lease was summarily rejected. In 1894, a syndicate was formed, and a considerable sum expended in the exploration of the rivers of Lakhimpur. But gold was not found any where in paying quantities and no return was obtained on the capital expended. In 1901, a prospecting license was issued to Messrs Winsland and Sutton, for a portion of the Subansiri, but, on receiving unfavourable reports from a mining engineer on the propĕcts of dredging in that river, they resigned their license in the following year.

Mr. Maclaren's report.

In the cold season of 1903-04, the auriferous rivers of Assam were regularly examined by Mr. Maclaren of the Geological survey of India.* He visited the Buri Dihing, the Junglu Pani, a small stream which rises in the Tipam Hills and falls into the Dihing about eight miles below Margherita, the Tengapani, the Brahmaputra above Sadiya, the Dibang, the Dihang, and the Subansiri. In every one of these rivers gold was found, but in the great majority of cases the quantity was insignificant, and was seldom as much as one grain to a ton of gravel. The best results were obtained at the Dirpai bar on the Subansiri, at Gurimara near Chunpura on the Brahmaputra, and at Sibiyamukh on the Dihang. Neither of the two latter places was, however, thoroughly examined.

At Dirpai no less than 7½ dwt. of gold were obtained

* His report will be found in the memoirs of the Geological Survey of India Vol. XXXI, Pt. 4.

from about $8\frac{1}{2}$ tons of sand; but with proper appliances the yield would probably have been about 10 dwts or 28 grains from every 23 cwt. of sand. This was considered by Mr. Maclaren to be a payable yield of precious metal, and the nature of the gravel offers no serious hindrance to successful dredging. On the other hand it must be borne in mind that operations cannot be carried on when the river rises in the rains, that the extent and depth of the deposit are unknown, and that it is doubtful whether the supply of gold, deposited each year when the river rises, would equal the amount removed during the previous season's operations. The Assam gold is of a fine quality, and the evil reputation it enjoyed in the days of native rule seems to have been due to the admixture of an excessive proportion of alloy. The grains are extremely small, and the gold was in all probability originally derived from the quartz veins of the metamorphic and gneissic schists of the higher ranges. From here it was washed into the Tipam or Sub-Himalayan sandstones, which were probably deposited by a river system not greatly dissimilar in direction from that at present in existance.

Boulders of limestone are found in the bed of the Digaru, a river which falls into the Brahmaputra about 20 miles north east of Sadiya. The stone is brought down the Digaru when the river is in spate, and to judge from it's rounded appearance, must have come from a considerable distance. Some sixty or seventy thousand maunds are collected every year, but the difficulty of transit up and down the Brahmaputra is a

Lime, kaolin salt

serious obstacle to the development of the trade. A thick deposit of kaolin resting upon white quartz occurs near the Brahmakund, and salt springs are found in the coal bearing strata, but are very little used.

Manufactures. The indigenous industries of Lakhimpur are not of much importance. Several hundred Europeans and many thousand natives obtain a living from the cultivation of the tea bush, and large sums of money are annually paid in England as interest on the capital invested in the undertaking. This industry is, however, almost entirely supported by British capital, and for every acre of tea in the district held by a native of the country, there are forty owned and managed by Europeans. The coal mines and oil wells, to which reference has been already made, are striking instances of the way in which wealth can be extracted from the very midst of the jungles; but, as far as the natives of the district are concerned, these valuable deposits would have remained untouched till the crack of doom. The saw mills, the brick and pottery works at Margherita, and the railway work shops at Dibrugarh are all the creations of European enterprise; and the indigenous arts and industries are, if any thing, even less important than they are in the other districts of the Assam Valley. They consist of the rearing of silk worms, the weaving of cotton cloth on the hand loom, and the manufacture of rough pottery, daos and knives, and brass and bell-metal utensils. A brief account of these cottage industries, and of the fisheries of the district is given in the following paragraphs.

Pat silk. Three different kinds of silk are produced in the

district. The most valuable kind is known as *pat*, and is obtained from the cocoon of two species of worms, the univoltine or *bor polu*. (*bombyx textor*) and the multivoltine or *horu polu* (*bombyx croesi*) but only the former worm is reared in Lakhimpur. Both kinds are reared indoors, on the leaves of the mulberry tree, (*morus indica*.) The eggs of the *bor polu* take ten months to hatch, the worms usually making their appearance about the beginning of January. The life of the worm lasts from thirty to forty days and the cocoon takes about six days to spin. The cocoons are of a bright yellow colour, but the silk, when boiled in potash water, becomes perfectly white. From twelve to fifteen thousand cocoons are required to yield one pound of thread, which is worth about Rs. 12. The *pat* worm is considered inpure and is only reared by Katanis. The total annual out put of the district is said to be some 12 seers of thread, which is spun in the Madarkhat mauza.

The *muga* worm (*antheroea assamoea*) is generally fed on the *sum* tree (*machilus odoratissima*.) Five different broods are distinguished by vernacular names, but the only broods commonly reared in Lakhimpur, are the *jarua* in December-February, and the *jethua* in the spring; the latter being by far the more important of the two. The complete cycle of the insect lasts from 54 to 81 days, the bulk of which is occupied by the life of the worm. When the moths hatch out, the females are at once attached to straws which are hung up inside the house, and are visited by the males, who are allowed to remain free for three or four days Muga.

Each female produces about 250 eggs which are placed in a dark place, and when the worms appear they are at once transferred to the *sum* tree. A band of straw or plaintain leaves is fastened round the trunk, to prevent them from descending, and during the night they take shelter under the leaves. Constant vigilance is, however, required to keep off crows, kites, owls, large bats, and other pests which prey upon the worm, and hail and heavy rain not unfrequently do damage. When fully grown, the worm is about 5 inches long and nearly as thick as the fore finger. In colour it is green, with a brown and yellow stripe extending down each side, while red moles with bright gold bases are dotted about the surface of the body. When the worms are ready to spin, they descend the tree and are then removed to the house. Most Assamese women possess one or more garments of *muga* silk, and well-to-do men wear waist cloths of this material on occasions of ceremony. *Muga* silk is chiefly manufactured for home use, and very little is produced for sale. The principal centres of cultivation are the mauzas situated on the north bank of the Brahmaputra. The silk is reeled from the cocoon, 250 of them yielding one ounce, of thread. The price obtained is from Rs. 6 to 12, per seer.

Eri silk. The *eri* worm (*attacus ricini*) derives its name from the *eri* or castor oil plant (*ricinus communis*) on which it is usually fed. Patches of this plant are to be seen in the gardens of most villagers, and the worm is proportionately common. From five to six broods are usually reared in the year; those which

spin their cocoons in November, February, and May yielding most silk. As with the *muga* moth, the females, when they emerge, are tied to pieces of reed, and are visited by the males who are left at liberty. The eggs are hatched in the house and take from a week to fifteen days to mature. As soon as the worms appear they are placed on a tray, which is suspended in a place of safety, and fed on the leaves of the castor oil plant. When fully grown, they are about 3½ inches long and of a dirty white or green colour. After the final moulting, the worms are transferred from the tray to forked twigs suspended across a piece of reed, and, when they are ready to spin, are placed on a bundle of dried plantain leaves or withered branches which is hung from the roof of the hut. The matrix of the cocoon is very gummy, and the silk, which is of a dirty white colour, has to be spun not reeled off. Before this is done, the cocoons are softened by boiling them in water and a solution of alkali. Empty cocoons yield about three quarters of their weight in thread. Eri silk is produced in almost every village, but the thread is required for home use and very little is sold. The Borborua hát, seven miles west of Dibrugarh, is the chief centre of such trade as there is in this product.

Cost of silk clothes.

The most useful garment made of *eri* silk is the *bor kapor*, a large sheet sometimes as much as 20 feet in length by 5 feet wide, which is folded and used as a wrap in the cold weather. It costs from Rs. 10 to Rs. 16. *Eri* cloth is also made into coats and petticoats.

Women's clothes, both petticoats and the shawls worn over the bust, are however usually made of *muga* silk, the thread required for a complete dress costing from Rs. 5 to Rs. 7.

Pottery.

Very little pottery is made in Lakhimpur, and in 1901 there were less than 200 persons in the district supported by the making and selling of earthenware vessels The earth used is generally a glutinous clay, which is well moistened with water and freed from all extraneous substances. If it is too stiff some clean coarse sand is worked up with it. A well kneaded lump of clay is then placed on the wheel, which is fixed horizontally and made to rotate rapidly. As the wheel revolves, the potter works the clay with his fingers and gives it the desired shape. The vessel is then sun dried, placed in a mould, and beaten into final shape with a mallet, a smooth stone being held the while against the inner surface. It is then again sun dried, the surface is polished, and it is ready for the kiln. The collection of the clay and firewood, the shaping of the utensils on the wheel and the stacking of them in the kiln, form the men's portion of the work. The women do the polishing and the final shaping. The Hiras, however, do not use the wheel, but mould the vessel on a board, laying on the clay in strips, and the whole of this work is entrusted to the women.

The instruments employed are the wheel (*chak*) which is about three feet in diameter, and rotates on a

piece of hard pointed wood fixed firmly in the ground, the mould (*athali*), a hollow basin about 60 inches long by 3½ inches deep, the mallet (*baliya piteni*) and the polisher (*chaki.*)

The principal articles manufactured are cooking pots (*charu*) cups (*mola*) water jars (*kalah, tekeli* and *thali*) and larger vessels (*hari* and *janga*) with lamps, pipes and drums. The profits of the business are said to be small, and the local pottery is being gradually ousted by a superior quality of goods imported from Bengal, and by metal utensils which are coming extensively into use. The principal centres of the industry are at Dibrugarh, Madarkhat, Margherita, Tinsukia, and Chabua.

Brass and Bell-metal.

The brass and metal industry is not of much importance. It's principal centres are at Japaragaon, Tekelasising, Bokalmajgaon, Japi Hojia, Ghorbund, and Jarwa, but the number of craftsmen, all of whom are Morias, is very small. Bell metal utensils are cast in moulds, but brass vessels are made out of thin sheets of that metal which are beaten out and pieced together. The implements of the trade consist of anvils of different sizes (*belmuri chatuli*) hammers, pincers, and chisels. The furnace is simply a hollow in the floor of the hut, and the bellows are made of goat's skin. When it is desired to join two sheets of brass together, nicks are cut in one edge, into which the other edge is fitted, and the two are then beaten flat. A rough paste made of borax and *pan*, a substance which consists of three parts of sheet brass with one part of solder, is then

smeared over the join. The metal is heated, the *pan* melts, and the union is complete. The principal articles manufactured are small flattish bowls often used as drinking cups (*lota*,) jars for holding water (*kalsi*, *gagari*,) trays (*sarai*) boxes to carry lime (*temi*,) and large vessels used for boiling rice (*thali* and *hata*.) Daos and knives are also manufactured here and there by blacksmiths, who are either foreigners, or, if they are natives of Assam, only follow this profession after the harvest has been reaped, when their fields do not demand their personal attention.

Weaving. Amongst the Assamese the weaving of cotton cloths is carried on by rich and poor alike, and a loom is generally to be seen in the courtyard of the house. Though cotton is grown in the hills of the Province, and though many different dyes are to be found growing in its forests, the material employed is almost invariably imported yarn, which is obtained in the requisite shades from the village shop. The loom consists of four stout posts, which are driven into the ground so as to make a rectangle about 5′ 10″ × 2′ 6″, and are joined together at the top by cross beams. The object of the loom is three-fold. First it has to support the warp horizontally at a moderate tension, secondly it has to hold the frame containing the reed suspended in such a position that it can readily be driven backwards and forwards to consolidate the weft, and thirdly it has to supply an arrangement to work the healds which raise and lower the threads of the warp. The implements required for the conversion of raw cotton into cloth, and the system

of manufacture followed, are described in the minutest detail in a " Monograph on the Cotton Fabrics of Assam " published by the Superintendent of Government Printing at Calcutta in 1897. Descriptions of mechanical processes of this nature are at their best unsatisfactory, and are hardly intelligible without a series of diagrams. Those curious on the subject would do well to consult this monograph, in which the whole subject is discussed with an elaboration and detail, which would be quiet unsuitable in a gazeetter. The total cost of the whole apparatus is about ten rupees, and, as weaving only occupies the leisure moments of the women, the use of home made clothing helps to save the pocket of the villager. Very little cotton cloth is prepared for sale, and there can be little doubt that weaving, as an industry, is commercially a failure; the price obtained for the finished article being out of all proportion to the time expended on its production. The principal articles made are *churias* or waist cloths, large sheets or shawls worn as wraps, called *chadar*, or *bor kapor*, and smaller shawls, called *chelengs*, A kind of shawl called *paridia kapor* is very finely made, and is enriched with a beautifully embroidered border. It costs sometimes as much as Rs. 200. Amongst the indigenous inhabitants, the clothing of the women used originally to be always made at home, and consisted of a plain petticoat (*mekhla*) and a species of scarf (*riha*) worn over the bust. Imported goods are, however, begining to oust the home made fabrics, and the loom is gradually falling into disfavour,

The fishing industry.

All classes of persons catch fish for their own consumption, but the Doms or Nadiyals are the only caste who will consent to catch it for sale. The most important fisheries in the sadr sub-division are the Brahmaputra, Dihing, Dibru, Sesa, and Bari Suti rivers, and the Gharukuti *bhil* in the Dibrugarh mauza, the Larua, Chaparu, and Kawaimari *bhils* in the Jamira mauza, and the Romai *bhil* in Madarkhat. In North Lakimpur the chief fisheries are the Luhit, Charikaria, Ghagor, Ranganadi and Khatali, but none of them are of very great importance, and the total revenue realized from fisheries in the district is, as a rule, only about Rs. 8,000 per annum. Fresh fish is exported from Dibrugarh to Dum Duma and other places on the line of railway, but no attempt is made to salt or dry it. The kinds which are most esteemed for the table are the roe (*labeo rohita*) the chital (*notopterus chitala*), the mahseer (*barbus tor*) the ari (*arius*), the magur (*clarias magur*), the pufta (*callichrous bimaculatus*) and the sol.

The following are the nets most commonly in use. (1) *Ghakata*, a net in the shape of a shovel which is pushed through the water, and is generally used to catch *butchua* fish, (2) *khewali*, a piece of netting to the centre of which a rope is attached while all round the edges there are weights. The net is thrown flat on to the surface of the water, when the weights sink and drag the sides of the net together, and the fish are entangled in pockets along the edges. It is then drawn by the rope to a boat or bank. The following names are appled to this net as the mesh decreases

in size, *sayani*, *pachani*, *afalia*, *angtha*, *ghanjal*. (3) *langi*, a large net which is stretched right across a river, the bottom being weighted and the top buoyed. The fish are then driven towards the net and become entangled in its meshes. The *tenga langi* is a smaller variety, the two ends of which are brought round to form a circle, as the net is not long enough to reach across the river. (4) *parangi*, a square net, the opposite corners of which are fastened to flexible bamboos. The net thus hangs like a sack from a stout pole to which the bamboos are attached, and is lowered into the water and raised at intervals. The villagers also fish in shallow water with wicker traps *polo* and *jokai*, and place other traps (*sefa* and *gui*) which are worked on much the same principle as the lobster pot, in running streams.

The right to fish in each of the larger fisheries is every year put up to auction. The purchaser of the fishery finds the task of realizing his dues much simplified by the fact that the Nadiyals are the only caste who fish for sale. Private persons are supposed to pay him a small fee for catching fish for their own consumption, but in practice, this is seldom realized. The mahaldar knows who will fish in the length of river purchased by him, and distributes the auction price of the fishery rateably over each adult fisherman, charging him in addition one or two rupees to cover the cost of collection, and as interest on the payment made to Government, before the full value of the fishery has been realized. Sometimes the same principle is followed in the case of *bhils*, sometimes the fishermen keep

accounts of the value of the fish sold and one-eighth of the gross receipts is taken by the mahaldar; a proportion which does not seem excessive, as he is responsible for any loss which may accrue. The fact that the mahaldar is always a Nadiyal of local influence, and that he only has to deal with his fellow caste men, has much to do with the harmonious working of the system.

CHAPTER VII.

ECONOMIC CONDITION OF PEOPLE—COMMUNICATIONS—TRADE—TOWNS—LOCAL BOARDS.

Rent—Wages—Prices—Food and dress—Dwellings—Condition of people—Social restriction—Isolation of Assam—Development of steam navtgation—Railways—Roads—Water communications—Post and telegraph—Trade—Towns—Local Boards.

The area of Government waste available for settlement in Lakhimpur is very large, the area of land held by native landlords free of revenue, or at half rates, is extremely small, and as a natural consequence, the great majority of the cultivators hold direct from Government. **Rent.**

Statistics of subtenancy were compiled in 1899-1900 and are summarised in the following abstract:—

Name of subdivision.	Total settled area for which returns were compiled.	Total area sublet.	Area paying produce rents.	Area paying cash rents.
	Acres.	Acres.	Acres.	Acres.
Dibrugarh	120,405	2,659	34	2,625
North Lakhimpur ...	29,956	1,159	31	1,128
Total ...	150,361	3,818	65	3,753

It will be seen that only two per cent. of the area for which statistics were collected in Dibrugarh, and four

per cent. of the area in North Lakhimpur was held by tenants; and that the amount of land held on condition that the tenant should make over half the produce to the landlord (*adhi*,) was absolutely inconsiderable.

Though the area sublet is comparatively small, the rents charged are for Assam fairly high. As much as Rs. 9 per acre is sometimes paid for rice land, and about half the land sublet pays a rent of Rs. 6 per acre, or fully twice the Government revenue. This is due to the fact that Lakhimpur is to some extent an industrial district, so that land near Dibrugarh or the great tea centres acquires a special value. Coolies who have saved a little money often like to settle down near the estate on which they were employed, so that they can still earn wages during the time when they are not actively engaged in their own fields. For people of this class, it is more economical to rent land and pay the landlords profit, than to move to the Government wastes in the remoter portions of the district.

About one third of the land sublet was held by persons who only paid the Government revenue; but these tenants, as a rule, render small services to their landlords, who otherwise would derive but little benefit from the arrangement. Low land on tea estates is generally let out to coolies for cultivation, but such persons would not be returned as tenants either in the revenue or census tables. The last decade witnessed a large increase in the number of tenants, the figure having risen from 1592 in 1891 to 6094 in 1901, but there is nothing in this fact to cause anxiety. There is land enough and

to spare for all, and if a person wishes to occupy a piece of land in a favourable situation, that has been already taken up, it is only right that he should pay for it.

Wages

The proportion of gentle folk who are unable to cultivate with their own hands is small, the number of ex-garden coolies who are not too proud to labour is considerable, and the difficulty of obtaining men to plough or reap the harvest is not as great as in some of the other districts of Assam. It must not, however, be supposed from this, that labour is either cheap or plentiful. Most of the local revenue officials agree in saying that it is still difficult to get labour, and this is the view of the Deputy Commissioner, who writes as follows on the subject. "My experience is that it is just as difficult to get Assamese to work in Lakhimpur as in other districts of Assam. The ex-garden cooly, unless tempted by high wages, at a time entirely in accord with his own convenience, will not usually work away from the immediate surroundings of his old estate. The rate of wages usually demanded, *i.e.*, six annas per diem does not command even a limited supply of regular labour." The general rate of wages seems to be from six to eight annas per diem, though in North Lakhimpur, and in the mauzas on either side of the railway line, between Rohmoria and Rangagora, the rate is lower, and unskilled labour can be obtained for four or five annas a day. Servants are not generally hired by the month, but when they are, receive from Rs. 3 to Rs. 7 in cash in addition to their food. In the south of the district, Nagas will sometimes undertake

to work for hire. Elsewhere the labouring classes are recruited from the cooly immigrants or from Assamese impoverished by the abuse of opium. The wages of carpenters are said to range from 10 annas to 2 rupees a day, masons get from 8 annas to one rupee, while blacksmiths are paid from 10 annas to Re. 1-8-0. Nearly all these artizans are foreigners, as the Assamese display no aptitude for the handicrafts.

Prices.

The statement in the margin shows the average price of rice in each of the four decades ending with 1902. It is many years since the cultivators of Lakhimpur produced enough grain to feed the immigrant population, and the price of rice depends on the price at which it can be imported from outside. During the last forty years, it has shewn a general tendency to appreciation, but this tendency is not so marked as in other districts, for the simple reason that even forty years ago rice in Lakhimpur was far from cheap.* For the same reason the market keeps extremely steady, and during that period there was only a difference of 7 seers between top and bottom prices, as compared with a difference of 29 seers in Sylhet. Salt has been fairly steady at 8 seers for the rupee, which is considerably cheaper than it was in the sixties, when only 6 seers could be purchased for that sum, but in 1903 the price fell to 10 seers for the rupee. The price of pulse will be found in Table X.

Average.	Seers per Rupee.
1863-1872 ...	... 14·2
1873-1882 ...	... 11·1
1883-1892 ...	... 12·7
1893-1902 ...	... 10·7

*. 1863. Seers of rice per Rupee: Sylhet and Cachar 32, Goalpara 25, Kamrup 23, Lakhimpur 15.

Food and dress.

The staple food of the people is boiled rice, eaten with pulse, spices, and fish or vegetable curry. Amongst the well-to-do, pigeon or duck occasionally take the place of fish, but fish is a very common article of diet, and is said to be a substitute for *ghi*, which is not very largely used by the indigenous inhabitants. Goat's flesh is eaten by Muhammadans and members of the Saktist sect, and venison is always acceptable, and is frequently procurable, especially in times of flood, when the deer are driven on to islets of higher land, and are ruthlessly slaughtered from boats. Tea drinking is very common, especially in the early morning. Sweetmeats usually consist of powdered grain mixed with milk, sugar, and *ghi*. The ordinary form of dress for a villager is a cotton *dhoti* or waistcloth, with a big shawl or wrapper, and sometimes a cotton coat or waistcoat. Women wear a petticoat, a scarf tied round the bust, and a shawl. Amongst the Assamese these cloths used formerly to be made at home, and in the case of the women, and of the large wraps worn in the cold weather by men, are frequently of silk. The actual cost to the family of cotton cloths is very small, but the silken wraps of the well-to-do are often beautifully embroidered, and the finest shawls are sometimes worth as much as Rs. 200. Foreigners wear cheap imported cotton *dhotis* and *saris*, blankets, and ready made coats, and the use of these articles of clothing is spreading amongst the Assamese. This change of fashion is unfortunately accompanied by a tendency to neglect the cottage loom, and in places the village women are beginning to forget the weaver's

art. This is to be regretted, as the time that was formerly spent on weaving is not now employed on any other profitable occupation. A curious article of dress worn by the Assamese is a large flat hat, called *jhapi*, which serves as a protection against the sun and rain, and is made of leaves and split bamboo, and decorated with coloured cloth. These hats are circular in shape, and range from two to six feet in diameter, but those of the larger size are more often carried than worn. Boots and shoes are the exception, and, in their own homes, even well-to-do people wear wooden clogs. Wooden sandals are also used by villagers, when travelling or working in jungle ground, where there are tufts of sharp-pointed grass.

Dwellings. The homestead of the ordinary peasant is generally separated from the village path by a ditch or bank, on which there is often a fence of split bamboo. Inside, there is a patch of beaten earth, which is always kept well swept and clean. Round this tiny courtyard stand two or three small houses almost huts, and in a corner there are generally two open sheds, one of which contains a loom, while the other serves the purpose of a cow-house The whole premises are surrounded by a dense grove of bamboos, plantains, and arecanut trees, and there are often numerous specimens of the arum family covering the ground. The general effect is picturesque enough, but the presence of all these plants and trees makes the whole place very damp, and excludes all sun and air. At the back there is usually a garden in which vegetables, tobacco, and

other plants are grown. The houses are small, dark, and ill-ventilated, and must be very hot in summer, and as they are built on low mud plinths are extremely damp in rainy weather. The walls are made of reeds plastered with mud, or of split bamboo, the roof of thatch, the rafters and the posts of bamboo. All of these materials can, as a rule, be obtained free of charge, and a house costs the owner nothing but the trouble of erecting it, but in spite of this, they are small and badly built. The houses of the middle class are built on practically the same plan, but they are larger, and wooden posts and beams are often used in place of bamboo. The furniture of the cultivating classes is very simple, and consists of a few boxes, wickerwork stools and baskets, brass and bell-metal utensils, and bottles and earthen pots and pans. The villager's bedding is a quilt made out of old cloths, and he either sleeps on a mat on the damp floor, or on a small bamboo *machan* or platform. The well-to-do have beds, tables, and chairs in their houses, but these articles of luxury are seldom found outside the town. This style of house is common to Bengalis and Assamese, but, in the flooded tracts, there are none of the graceful areca palms, as the tree cannot thrive if the roots remain long under water. These orchards and gardens are a considerable source of wealth to the cultivator, and a house, standing on a bare patch of ground, has always a somewhat poverty stricken appearance to eyes accustomed to the luxuriant vegetation in which the typical Assamese cottage is embedded.

Economic condition of the people. The villagers in Lakhimpur are surrounded by all the conditions that make for material prosperity. The soil is fertile and there is abundance of waste land still available for settlement, the rates of revenue are not excessive, the rainfall is certain and abundant, and the public health is good. There is no lack of communications, and, most important of all, the people have a never failing market at their very doors. In 1903-04 nearly 57½ lakhs of rupees were paid away in wages to garden coolies in the sadr subdivision, or Rs. 33 for every man, woman, and child living outside the gardens. A large proportion of this enormous sum came no doubt into the hands of the Marwari merchants, and some is spent on liquor, but the amount that changes hands at the village markets must be considerable. The cooly is ready and willing to buy all that the cultivator will sell, whether of rice, vegetables, molasses, poultry, or live stock; and if the villagers are not well off, it is difficult to resist the conclusion that they themselves must be to blame. A striking feature of these markets is the large proportion of foreign vendors, and of regular shop keepers. Here, as elsewhere, the Assamese are apparently allowing much of the profits of agriculture to slip through their fingers, and instead of taking their own rice to market, they sell to the middle man who makes a large turn on the transaction. The standard of comfort is not very high, but a large proportion of the Assamese population consists of Ahoms, Chutiyas, and the humbler Hindu castes, who have not been richly endowed by nature either with intelligence

or enterprise. There is no accumulation of wealth, and few amongst the Assamese could be described as even moderately well-to-do; but even the local revenue officials admit that there is very little indebtedness in the sadr subdivision.

Opium, no doubt, levies a heavy tax upon the people. In 1900, 374 maunds of opium were issued from the treasury, which must have cost the actual consumers at the shops no less than Rs. 6,75,000; a sum more than a lakh in excess of the total land revenue of the district. A certain proportion of this opium was no doubt taken by the hill tribes, but after making every allowance for this factor, it is obvious that the drug must be a serious drain upon the pockets of the consumers. Opium, moreover, tends to impoverish the people in two ways. The man who is a large consumer of the drug is not only compelled to pay heavily for his pleasure, but its use tends to deprive him of that spring and keeness, which is essential in a people who are to advance far on the path of material progress. In North Lakhimpur, the tea industry is of less importance, and the wages bill in 1903-04, only amounted to a little over five lakhs of rupees. Even this was equivalent to seven rupees per head of the population in the villages, and it is obvious that a large proportion of this money must ultimately find its way into the pockets of the people. The local revenue officials assert that about half the population of the subdivision are in debt, but it seems hardly probable that this can really be the case. If the condition of the people is

actually as bad as is represented, it is difficult to resist the impression that they are themselves responsible. This is practically admitted by one mauzadar, who says that the villagers eat opium and are so weak that they prefer to live by begging to taking work on tea gardens. Some of the villagers undoubtedly are living in a very miserable style, but poverty of this kind is simply due to the idleness and apathy which induce a man to continue living in a miserable cottage instead of taking the trouble to repair it. The rate of interest demanded varies from $37\frac{1}{2}$ to 75 per cent. per annum, the lower rates being charged for loans of Rs. 100 and upwards. In addition to the money they obtain by selling their surplus products to the garden coolies, the peasants add to their resources by taking petty contracts for house building and similar work on tea gardens. Here and there it is said that they will work upon the roads, others again cut cane, while north of the river, *muga* and *eri* silk is sometimes the source from which the revenue is paid.

Social restrictions. The inhabitants of Lakhimpur are not hampered by many social restrictions with regard to trade, but commerce has but little attraction for them in any of its forms. All castes may of course catch fish, but Doms alone will sell it, though in Sadiya some of the Miris are beginning to do so, to the disgust of the older members of the tribe. All over the district there is a prejudice against paying money or lending rice either on Monday or Wednesdays, and in places Saturday is barred as well. Saturdays and Tuesdays are also

thought to be inauspicious days for building houses or beginning to sow or plough. Similar objections hold good with regard to the day of the new moon, the full moon, and the eleventh day following.

Communications.

At the time when we first came into possession of the Province, the difficulty of communications proved a most serious obstacle to its development. The Brahmaputra was the great highway which connected this portion of the Company's dominions with Bengal, but the journey up the river for any boat of ordinary size was a very lengthy business. McCosh, writing in 1837, stated that a large boat took from six to seven weeks to come from Calcutta to Gauhati, though the post, which was conveyed in small canoes rowed by two men, who were relieved every fifteen or twenty miles, reached Gauhati in ten days and Bishnath in three days more.* From Gauhati to Dibrugarh it was a month's journey for a "pinnace," even in the cold weather;† and in the rains against the current the journey took much longer.

Few people presumably had sufficient time or patience to undertake the voyage at that season of the year. Week after week the weary traveller must have pursued his tedious way, his view bounded, as a rule, by high banks of treacherous sand, which then, as now, were continually being undermined by the current, and

* Topography of Assam-page 9 & 82.

† Report on the Province of Assam by A. J. Moffatt Mills, Calcutta 1854, paragraph 82. Butler in his Sketch of Assam puts the journey from Calcutta to Saikhoa in a badgerow *via* Dacca at over nine weeks even in the co'd weather.

falling with a crash into the water. It was only occasionally that he could relieve the monotony of the voyage by a stroll on shore, as through the greater part of its course down the valley, the banks of the river are covered with high reeds and grass, which are quite impenetrable to a man on foot; and the tedium of this dreary voyage of fully three months duration, must have been immense. Canoes, of course, could travel faster against the current, but a canoe is not a vessel in which the ordinary man can journey for many days in comfort.

Beginning of steam navigation

This was the state of things for twenty-two years after our annexation of the Valley, but in 1848, the Government steamers were deputed to ply between Calcutta and Gauhati. Three years later, the Commissioner, Major Jenkins, made the not unreasonable proposal that three or four times a year they should be allowed to proceed right up the Valley to Dibrugarh. His suggestions were negatived by the Marine Department, on the ground that the voyages would be financially a failure; but his views were strongly urged on Government by Mr. Mills when he visited the Province in 1853. The proposal met with the approval of the Lieutenant-Governor, instructions were issued for the despatch of a steamer in that year, and several voyages were made with results that were not unsatisfactory, even from the financial point of view. The journey from Gauhati to Dibrugarh and back occupied no more than fifteen days, an extraordinary contrast to the interminable delay of the same voyage in a

country boat. The cargo tendered soon exceeded the carrying capacity of the steamers; and in 1855, Lieutenant Colonel Jenkins complained that the vessels reached Gauhati fully laden with goods shipped in Upper Assam, so that Gauhati and the ports below derived practically no advantage from the downward service of the steamers.

As was only to be expected, the rates at first charged were fairly high, and a ticket from Calcutta to Gauhati cost no less than Rs. 150. On the other hand, the accommodation was designed on an extremely liberal scale, as the regulations, issued in 1851, expressly authorised passengers to carry pianos in their cabins free of freight, provided that they were required for use during the voyage and were not in packing cases; a proviso which suggests a very deliberate voyage as compared with the speedier travelling of the twentieth century. Freight on ordinary stores seem to have been charged at the rate of one rupee per cubic foot between Calcutta and Gauhati; but for some time longer a great part of the trade of the Province continued to go by country boat. The planters could never count on being able to despatch their tea by steamer, and were thus compelled to keep up an establishment of country boats, and having got the boats to use them, and the same objection held good in the case of native merchants.* The cost of working the line was heavy, but in spite of this, it showed a fair profit, and it was evident that

* Memorandum by the Director of Public Instruction Bengal dated the 7th February 1857.

there would be a great development of the traffic if only facilities were provided for it.

Private Steamers. put on the river.

In 1860, the Indian General Steam Navigation Company entered into a contract to run a pair of vessels every six weeks, provided that the Government boats were taken from the line; and since that date the steam navigation of the Assam Valley has been in the hands of this Company, and the River Steam Navigation Company, with whom they are associated. But in spite of the existence of a regular service, and the quickening effects of private enterprise, travelling still continued to be very slow. The steamers did not profess to run to scheduled time, the delay at the larger ports for the loading and unloading of cargo was considerable, and the passenger no doubt often required his piano to beguile the tedium of the way. In 1861, the Commissioner, Colonel Hopkinson, was disposed to take a gloomy view of the condition of affairs; and in a letter to Government openly gave expression to the opinion that it would be better to compensate the planters for any loss they might sustain, and abandon the Province, unless Government were prepared to enter upon a course of vigorous material improvement. In the same letter, he drew the following dreary picture of the isolation of Assam.

"With the furious current of the Brahmaputra, still unconquered by steam, opposing a barrier to all access from without, and not a single road fit for wheeled carriage, or even passable at all for a great portion of the year, there is such an absence of the full tide of life running through Assam, such a want of intercourse between man and man, as does and must result in apathy, stagnation, and torpidity, and a terrible sense

of isolation, by which enterprise is chilled and capital and adventurers scared away. The profits of tea cultivation should attract hundreds where tens now come, but the capitalist in not always to be found who will venture his money in a country to which access is so difficult as it is to Assam, through which his correspondence travels at the rate of a mile and a half an hour, and in which it may take a month to accomplish a journey of two or three hundred miles; nor on the other hand, is it every spirit, however bold, that cares to encounter so dreary a banishment, and to be so entirely cut off from his fellows in a place from which exit is only possible at rare intervals, and must be so literally a prison or tomb to him."

The daily mail service.

Matters, however, gradually improved, and in 1884, a daily service of mail steamers was started between Dibrugarh and Dhubri, connecting with a steamer which plied between the latter place and Jatrapur. Here the traveller who was pressed for time could take the train to Calcutta, though the line was not of the most comfortable, as more than one river had to be crossed in boats before the capital of Bengal was reached.

The introduction of a daily steamer service represented an enormous advance in the facilities for communication between Assam and the outer world. The large steamers were not uncomfortable, but progress was slow, and not only the hour, but the date on which they left any given port was far from certain. The would-be traveller could not choose his own time for starting on his journey, but had to select a date on which a steamer was expected at the nearest ghat; and even then he not unfrequently had to endure a weary period of waiting by the river bank. The daily service changed all that, and combined the advantages of regularity with a speed which, in comparison with that attained by the large

cargo boats, was most commendable. During the rains Dibrugarh was reached on the fifth day after leaving Dhubri, while the downward journey was performed in three days. The navigation of the river is not entirely free from difficulty, the companies were not incited to further efforts by competition, and some years elapsed before any attempt was made to reduce the duration of the voyage. On the completion of the Assam Bengal Railway, the companies realized that it was necessary to accelerate their timing if they were to retain their traffic; and during the rains, steamers now reach Dibrugarh on the fourth day from Dhubri, while the voyage from Dibrugarh to Goalundo only occupies three days, though in the cold weather the journey takes a day longer. A service of fast steamers also plies direct between Dibrugarh and Calcutta *via* the Sundarbans, by which goods can be sent direct without any necessity for handling, and the establishment of a feeder service up to Sadiya is at present under consideration.

The Assam Bengal Railway. In 1903, Dibrugarh was supplied with an alternative means of communication with the outside world, by the completion of the Assam Bengal Railway. The line enters the district at mile 556, and meets the Dibru-Sadiya Railway at Tinsukia. Passengers can now travel by rail to Gauhati, thence by steamer to Dhubri,* and by rail to Calcutta, or through the North Cachar Hills down the Surma Valley to Chandpur, and thence *via* Goalundo to the capital of Bengal. The latter

* A railway from Golakganj a station on the Eastern Bengal State Railway, near Dhubri to Gauhati, is under construction.

journey can be completed in 57 hours, while the sea at Chittagong can be reached in less than two days; a marvellous change from the two months of dreary tracking which were necessary only sixty years ago.

The Dibru Sadiya Railway. The cost of metalling is prohibitive in Lakhimpur, the unmetalled roads are quite incapable of carrying heavy traffic in the rains, and the necessityfor providing an outlet for tea and for the coal in the extensive measures at Makum, led to the construction of the Dibru Sadiya Railway in 1885. This line runs from the Brahmaputra near Dibrugarh past Dibrugarh bazar, Lahoal, Dikam, Chabua, Panitola, and Tinsukia Junction to Makum Junction, which is 35 mile east of Dibrugarh. Here it divides into two branches. One line turns north and runs past Barhapjan, Hansara, and Dumduma, to Talap, a distance of 16 miles, and will soon be extended to the Brahmaputra at Saikhoa. The main line runs east and then south past Tingrai, Digboi, and Powai to Margherita, 59 miles from Dibrugarh. In 1903, nearly 240,000 tons of coal were carried over this railway, and there is a large traffic in tea, oil, grain, piece goods, and similar commodities.

Road system. In addition to its most convenient railway, Lakhimpur is fairly well supplied with roads. In 1902-03 there were 23 miles of metalled and 723 miles of unmetalled roads, maintained either by the Public Works Department or the Local Boards; the last named authorities being responsible for about five-sevenths of the total length. Calculated on the total area of the district, this gives about 6 square miles of country for every

mile of road, but the advantages enjoyed by the inhabitants of Lakhimpur are greater than these figures would suggest. There are large tracts of country, more especially north of the Brahmaputra and east of the railway line, in which population is extremely sparse and roads are not required; and the part of the district which is south of the river and west of the railway, in which most of the tea gardens are situated, is well supplied with the means of communication. The roads are, as a rule, well bridged, and only the larger rivers are crossed by ferries; but though they are raised above flood level, they are much cut up if heavy traffic passes over them in the rains, as only a very short length has as yet been metalled.

Roads on the south bank

The south trunk road enters the district from Sibsagar, 23½ miles west of Dibrugarh, passes through that town, runs along the Dibru Sadiya Railway line as far as Talap, and finally ends at Sadiya 66 miles from Dibrugarh. There are rest houses at Lepetkatta 9 miles, and Dihing 20 miles west of Dibrugarh, while east of that town they are situated at Tinsukia on the 30th mile, Dumduma on the 44th, Talap on the 51st, Saikhoa on the 60th, and Sadiya. From Sadiya there is a fine road running north to the frontier outpost at Bomjur 25 miles away, but it is only required for military and strategic purposes and carries little traffic.

At Lahoal, another important road takes off from the trunk road six miles east of Dibrugarh, and runs through the Madarkhat, Tengakhat and Jaipur mauzas to Jaipur, a total distance of 30 miles. There are rest

houses at Madarkhat 8 miles, and Tengakhat, 18 miles from Dibrugarh, and at Jaipur itself. The rivers are all spanned by permanent bridges, with the exception of the Dihing on the 23rd mile, which is crossed by a ferry.

North of the Dibru-Sadiya Railway, the Rangagora road runs for 26 miles east of Dibrugarh, through the Rohmoria and Bagdang mauzas to Guijan. Branch roads leave it at the 9th and the 24th mile, and connect it with the Dibru-Sadiya road; while from Guijan a road runs south and west a little to the west of Tinsukia and along the Tingrai river, a total distance of 20 miles, and joins the Jaipur road at the 16th mile. From the 26th mile on the Jaipur road, the Horubat Ali runs to Kenduguri 21 miles away, and from Kenduguri the Sologuri Ali runs due west between the Khowang and Jaipur mauzas to the Diroi river, a distance of 21 miles.

These are, however, only the main lines of communication, and they are linked up with one another, and with the various tea gardens near which they pass, by a system of branch roads. There are altogether 12 more regular roads under the management of the Local Board south of the Brahmaputra, with a total length of 55 miles, but none of them are of sufficient importance to merit separate mention. Reference must, however, be made to the Dhodar Ali, a legacy from the Ahom kings, which leaves the trunk road a little to the east of the Dhansiri in the Golaghat subdivision of Sibsagar, and after running through the south of that district, finally ends at Jaipur, only the last eight miles actually lying within the boundaries of the Lakimpur district.

Roads on the north bank

North of the Brahmaputra, the north trunk road runs from the border of Darrang through the Narayanpur, Laluk, and Nabaichoa mauzas to North Lakhimpur, a distance of 34 miles. Most of the streams are spanned by bamboo or timber bridges, but four miles west of the subdivisional head-quarters station the Ranganadi is crossed by a ferry, and so is the Dikrang 22 miles further west. There is a rest house at this place, and another one at Laluk 14 miles west of North Lakhimpur. The trunk road is now being extended from North Lakhimpur to Dibrugarh. North Lakhimpur itself is connected with the Brahmaputra at Kamalabari by a road 27 miles in length, but only the first 19 miles, *i.e.*, up to the Luhit, lie in the Lakhimpur district. The Luhit is crossed by a ferry near the point where it receives the waters of the Subansiri, and a rest house has been erected on the north bank. There is another rest house on this road, nine miles south of North Lakhimpur.

The most important roads maintained in this subdivision by the Local Board are as follows. Road from North Lakhimpur to Gogamukh 26 miles, with a rest house at Gogaldubi; road from North Lakhimpur to Dhakua-khana 23 miles with rest houses at Dhakua-khana and Bebejia; road from Dhakua-khana to Bardalani about 15 miles due north; and thence another 8 miles to Gogamukh.

Ferries.

The most important ferries are those over the Brahmaputra at Dibrugarh, over the Dihing at Khowang, over the Luhit at Garamur, and over the Dikrang. The right

of managing these ferries and levying tolls at the rates prescribed by Government is put up to auction, and in 1901, those in the sadr subdivision fetched Rs. 3,800 while those in North Lakhimpur were sold for Rs. 1,900. These ferries are generally crossed on *mars* or wooden platforms placed on two canoes arranged side by side.

Water Communications.

Till recently, the Brahmaputra was the only means of communication between Lakhimpur and the outside world, and a large part of the trade of the district still enters it and leaves it by that route. The other rivers are not much used for the purposes of commerce, as they do not tap the most productive portions of the district, and in many cases, snags, rapids, and a strong current offer a serious obstacle to traffic. During the cold weather the mail steamers have as a rule to stop a mile or two below Dibrugarh ghat, and above that town, traffic is carried on by country boat; but vessels of four tons burthen can get as far as Sadiya, and even one day's journey further on to Digarumukh, whence they bring down limestone. The great tributaries which join the main river from the north, such as the Dihang, Dibang, Sesseri, and others, come from too wild a tract to carry trade of any great importance. A certain amount of traffic is carried on up and down the Dibru river as far as Dumduma in the rains, but is suspended in the dry season, as there is then very little water in the river. A boat of four tons burthen can go up the Buri Dihing as far as Jaipur in the cold weather, and well above Margherita in the rains. At this season of the year, small feeder steamers sometimes

come up to Jaipur, to carry away the tea manufactured on the estates which are situated in the neighbourhood. A certain amount of traffic also goes on up the Noa Dihing and Tengapani rivers. In the cold weather, a boat of four tons burthen can proceed up the former river as far as Ningru Samon's village, and in the rains can get beyond the Inner Line; but there is very little population on its banks, and consequently not much traffic. The Subansiri is navigable by large boats, almost up to the frontier of the Province, at all seasons of the year, and small steamers ply twice a week to Badati in the cold weather, and to Bordeobam in the rains. The Ranganadi is also navigable right up to the frontier, by boats of four tons burthen, at all seasons of the year, and small steamers occasionally go up to Pohumara.

Post and Telegraph. In 1904, there were 35 post and telegraph offices open in the district. The names of these offices will be found in a statement in the appendix.

The following abstract shows what an enormous development of postal business has taken place during the last forty years.

Number of post offices in.		Number of letters and post-cards delivered in thousands omitted.			Number of Savings Banks' accounts in	Balance at the credit of depositors.
1875.	1903-04.	1861-62.	1870-71.	1903-04.	1903-04.	1903-04.
6	35	4	70	877	2,981	Rs. 478,000

The articles exported from the district are few in number, but of considerable value. They consist of tea, which, in 1903, was probably worth even at wholesale prices about £1,000,000, coal, oil, wax and candles, India rubber, cane, tea boxes, and lime. Till recently, all external trade left the district by the Brahmaputra; but a portion, at any rate, of the traffic will now no doubt be diverted to the Assam Bengal Railway, as goods can be sent direct without handling to the sea at Chittagong. **Trade.**

The chief imports are rice, of which some six lakhs of maunds were brought up to the district in 1903, pulse and other food grains, cotton thread and cloth, umbrellas, opium, salt, sugar and spices, tobacco, potatoes, mustard oil, *ghi*, beer and spirits, hardware and machinery, and corrugated iron. Practically the whole of the import trade is in the hands of the Marwari merchants, locally known as Kaiyas, who have reaped a rich harvest from the flourishing gardens of the district. There is hardly a plantation without its Kaiya's shop, but these enterprising dealers are not content with the profits derived from civilization. They have established agencies on the very outskirts of the district, where they trade with the hill tribes who bring down chillies, rubber, ivory, wax, madder, and other products of the jungle, which they exchange, generally at very favourable rates, for opium and other goods procurable in their shops. The Kaiya is indeed ubiquitous in Lakhimpur. There is hardly an important village, even in the sparsely populated tracts north of the Brahma-

putra, which has not its shop; and as there is generally no competition, the trader is able to buy from the raiyats, their mustard, surplus *dhan*, or *eri* cloths at exceptionally favourable rates. In the interior of the district, their shops will sometimes be found at some distance from the roads, and boats, and to a smaller extent pack ponies, are used for the removal of the produce collected in their golas. The Kaiya's shop is, in fact, the advanced outpost of civilization, and is to be found even beyond our frontier guards. There are Kaiyas on the Patkai, Kaiyas at Ningru Samons' village on the Noa Dihing, and Kaiyas at Chowkam's village near Mishmighat on the way to the Brahmakund. Their desire for gain drives these peaceful traders, who can have nothing in them of the spirit of the pioneer, into the wildest of jungles and amongst rude and uncivilized people; but as their transactions with the hill tribes are advantageous to both parties, it is seldom that any cause of friction arises.

The principal centre of trade is Dibrugarh where, in addition to the Marwari bazar, there are two large general stores under European management, and a number of shops kept by Muhammadans, who deal in furniture, hardware, crockery, and general haberdashery.

Sadiya is an important centre for the frontier trade, and is a market for lime stone, potatoes, pulses, molasses, wax, ivory, rubber, and musk, the four last articles being brought down by the Abors and Mishmis from beyond the frontier. A very large market is held every Sunday at Dumduma, which is attended by thousands of garden

coolies and villagers. There are also bazars of some importance at Saikhoa, on the south bank of the Brahmaputra opposite to Sadiya, at North Lakhimpur, where trade is carried on with the Miris and Daflas who inhabit the outer ranges of the Himalayas, and at Margherita. At the latter place there is a certain amount of trade with the trans-Patkai tribes, who bring down amber from the Hukong valley, and here is actually to be found a Chinese shop keeper, a fact which emphasises the easterly position of Lakhimpur. Since the completion of the Assam Bengal Railway, Tinsukia has shown some indications of growing into a commercial centre, as it is situated at the junction of two railways and commands all the principal avenues of trade.

There are other villages in which there are two or three small shops which deal in salt, oil, piece-goods, grain, and very often opium, but none of these places are as yet of much importance. This is largely due to the tea industry, which has a very decentralizing effect on trade. Some of the coolies' requirements are supplied by the garden Kaiya, while paddy, poultry, vegetables, and molasses can generally be purchased at the weekly markets held in different portions of the district. The economic development of Lakhimpur is altogether opposed to the growth of towns in the interior. Its principal industry is agricultural, there are no indigenous arts or manufactures to collect the people into small centres of population, and each garden tends to form a unit by itself. Two

statements in the appendix show the names of the villages in which there are three or more permanent shops, and of the places at which markets are held. For the convenience of the coolies these markets are generally held upon a Sunday.

Towns. Dibrugarh. The only urban area in the district is Dibrugarh, but Dibrugarh, though not at present the largest, is probably the most prosperous little town in Assam. It is situated on the left bank of the Dibru river a little above the point at which it falls into the Brahmaputra, in 27°28' N and 94·°55' E. The western end of the town consists of rows of cottages along the river's bank, inhabited by Nadiyals and other low caste people, which gradually merge into Vetch Street, the great commercial centre. Here there is a daily bazar (Digli Bazar) held near the bank of the river, in which fish, poultry, grain, vegetables, and other supplies can be obtained. There are tailors shops which turn out quantities of cheap ready made clothing, Dacca *beparis* who deal in furniture, spices, stationery, haberdashery and all the miscellaneous goods affected by their class, and the wealthy Kaiyas whose staple stock in trade is grain of all sorts, piece goods, salt, and oil. Of recent years the Dibru has been cutting into this portion of the bazar, and the Kaiyas have begun to move their houses further back towards the railway station. At the end of Vetch Street comes the European quarter. Most of the houses are situated on the red road which runs along the bank of the Dibru river, and from which, on a clear day, a beautiful view can be obtained of the lower ranges of hills and the

snows beyond. Behind this road there are open maidans, on which are situated the cutcherry and other public offices, and the recreation ground. At the back of these maidans are the Graham Bazar, the medical school, the jail, and the military police lines. The eastern end of the town is occupied by the cantonments. In addition to the buildings already mentioned, Dibrugarh contains a large masonry fort, which is now only used as an arsenal for the volunteers, a church, four small printing presses, at two of which weekly newspapers in English are published, a high school, and the workshops of the Dibru Sadiya Railway. The town has grown very rapidly of recent years. In 1872, the population was only 3,870 souls, nearly a third of whom were living in cantonments. In 1881, there were 7,153 inhabitants, in 1891, 9,876, and in 1901; 11,227.

The prosperity of the place is evinced by the fine shops erected by the richer Kaiyas, and the comfortable houses in which many of the native gentry dwell. In spite of this, Dibrugarh is one of the least picturesque of any of the towns in Assam. There are none of the low hills which add so much to the charm of Gauhati and Tezpur, none of the stately trees which convert Nowgong into a noble park. The town is well laid out, the streets are broad, there are hardly any slums, and the sanitary arrangements leave little to be desired, but apart from the view of the hills from the red road, the place is uninteresting, flat, and dull. The total area of the town including the cantonments is 2·1 square miles, and it contains altogether over 15 miles of

road, 13 of which are metalled. Drinking water is either obtained from the river or from wells, 20 of which have been sunk for the use of the general public. Dibrugarh is easy of access from the outside world. It is one of the termini of the Dibru-Sadiya Railway, and is thus connected by rail with Gauhati and with the sea at Chittagong. The trunk road from Dhubri to Sadiya runs through the town, and it is the terminus of the steamer service on the Brahmaputra.

The town was constituted a Municipality under Act V. (B. C.) of 1876 in 1878, and Act III (B. C.) of 1884 was introduced in 1887. The Municipal Committee consists of 14 members, 9 of whom are elected by the rate payers and are non-officials. The Deputy Commissioner has always hitherto been appointed Chairman, but the duties of Vice-Chairman are discharged by a private gentleman. The principal taxes imposed are a tax on holdings at the rate of 5 per cent. on the annual value, and a latrine rate. The incidence of income per head of population during the year 1903 (Rs. 3-9-9) was higher than that of any other urban area in the Province except Gauhati, Tezpur, and Shillong; but a considerable proportion of the income takes the form of a grant from Government, and the incidence of taxation per head, in 1903, was only Re. 1-5-2. In addition to the Government grant, the principal sources of income are taxes on houses and lands, animals and vehicles, the conservancy rate, and the revenue derived from the municipal market. Details with regard to the principal items of expenditure and revenue in 1890-91 and 1900-01 will be found in Table XVIII.

North Lakhimpur, the headquarters of the subdivision of that name, is little more than a village. Situated as it is on an upland plain covered with short grass, close to a range of hills nearly 10,000 feet in height, the appearance of the place is extremely picturesque. The public buildings include a small cutcherry, a school, a post and telegraph office, a dispensary, a circuit house, a dak bungalow and a small jail. A reminiscence of the former troubles on the frontier is to be found in the Government treasury, which is located in a masonry tower which was used as a fort in olden days. In the village street there are six Kaiyas shops, and some ten more kept by Muhammadans and up-country men. The Daflas and Miris bring down rubber, wax, madder, and elephants tusks, and the Assamese sell paddy, mustard, pulse, potatoes, and a small quantity of *eri* and *muga* silk cloths. The trade of the place is, however, unimportant, as the Kaiyas have many shops in the interior with which the villagers are able to deal direct. **North Lakhimpur.**

In 1872, the management of the district roads was entrusted to a committee presided over by the Deputy Commissioner. The funds at their disposal were partly obtained from tolls and ferries on local roads and other miscellaneous sources, but principally from grants made by the Bengal Government from the amalgamated district road fund. In 1874, when Assam was erected into a separate Administration, the Government of India assigned one seventeenth of the net land revenue for local purposes. The district improvement fund was then started, and the administration of its resources was **Loca Boards.**

as before entrusted to the Deputy Commissioner assisted by a committee. The actual amount placed at their disposal was not large, and in 1875-76 the total income of the district funds of the Province was only Rs. 1,85,000, which was a small sum in comparison with the twelve and a half lakhs of rupees received by the Local Boards in 1903-04. In 1879, a Regulation was passed, providing for the levy of a local rate, and the appointment of a committee in each district to control the expenditure on roads, primary education, and the district post. Three years later, the district committees were abolished by executive order, and their place was taken by boards established in each subdivision, which are the local authorities in existence at the present day.

The Deputy Commissioner is Chairman of the board of the headquarters subdivision, but the board in North Lakhimpur is presided over by the subdivisional Officer. The Local Boards are entrusted with the maintenance of all roads within their jurisdiction, with the following exceptions. The trunk roads north and south of the Brahmaputra, the roads from North Lakhimpur to Kamalabari, and from Dibrugarh to Jaipur, the roads within municipal limits, and a few of purely political importance in the neighbourhood of Sadiya. They are also charged with the provision and maintenance of local staging bungalows and dispensaries, and with the supervision of village sanitation, vaccination, and the district post. They are also in charge of primary education, subject to the general control of the Education Department, and are empowered

to make grants-in-aid to schools of higher grade, subject to certain rules. For these purposes, they have placed at their disposal the rate which is levied under the Assam Local Rates Regulation of 1879, at the rate of one anna per rupee on the annual value of lands, as well as the surplus income of pounds and ferries, and some minor receipts. The receipts under the head of provincial rates are not sufficient to provide for the proper development of the district, and the local income is supplemented by large grants from Provincial funds. In the case of the North Lakhimpur Board this grant amounts to considerable more than half the total income, while in Dibrugarh it exceeds one third. The principal heads of income and expenditure are shown in Table XVII. The annual budgets of the boards are submitted to the Chief Commissioner for sanction. The estimates for all works, costing Rs. 500 or over, must be submitted to the Public Works Department for approval; and important works, requiring much professional skill, are made over for execution to that Department. Less important works are entrusted to the board overseers.

The following statement shows the constitution of the Local Boards in the district.

Name.	Area.	Population.	Members.				
			Total number.	Euro-pean.	Native.	Official.	Elected.
Dibrugarh ...	3,033	286,572	26	15	11	4	10
North Lakhimpur ...	1,174	84,824	14	8	6	2	6
Total Lakhimpur ...	4,207	371,396	40	23	17	6	16

Work done by Local Boards.

A glance at the Revenue survey map will show that the authorities entrusted with the construction and maintenance of the lines of communication in the district received no mean legacy from the days of native rule. The Bor Phukan Ali, the Mori Ali, the Rupgarh Ali, the Dhodar Ali, the Hapni Ali, the Solaguri Ali, are names which recall the Ahom Rajas with their legions of *paiks*, who were sometimes employed in the excavation of enormous tanks, sometimes in throwing up fine roads, raised well above the level of the surrounding country. During the last twenty years, the local authorities of Dibrugarh have not been much concerned to extend the existing mileage of their high-ways. They have, however, done good service in constructing bridges of masonry, or iron and timber over rivers which had previously to be crossed on rafts, or on temporary structures of bamboo, structures which were liable to be washed away in time of flood, or to suddenly collapse beneath some mounted traveller. Some of the most important of these bridges are those over the Tikra Disai, Dinjan, and Dholajan on the Rangagora road; over the Tingrai, Hingrijan, and Balijan, on the Tingrai Hingrijan road; over the Kakojan and Mamochikajan on the Dhodar Ali; and over the Sesa on the Mankata road. They have also metalled short sections of these roads where the traffic is heaviest; but the enormous cost of metalling in Assam, and the heavy charges for repairs, has rendered it impossible hitherto to do very much in this direction. North of the Brahmaputra the country is more exposed to flood, and the roads have often to be

raised to a considerable height above the surrounding marsh. There is not as rich a legacy of public works from the days of native rule, and the local authorities have chiefly been engaged in raising and improving such lines of communication as the Badati, Dhakua-khana, and Gogamukh roads.

CHAPTER VIII.

GENERAL ADMINISTRATION.

Native system of land revenue—Early settlements—The settlement of 1893-94—Expansion of the land revenue—Poll Tax—Established and fluctuating cultivation—Annual and periodic leases—Settlement staff—Land tenures—Land revenue collection—Town Land—Area of unsettled waste—Excise—Income Tax—Stamps—Public Works—Criminal and Civil Justice—Registration—Military—Civil Police—Military Police—Jail — Education — Printing Presses—Medical—Surveys.

Land revenue. Native system. The system of taxation in force under the Ahom kings was mainly one of personal service. The whole of the adult male population was divided into bodies of three men called *gots*, each individual being styled a *paik*. One *paik* out of the three was always engaged on labour for the State, and while so employed was supported by the remaining members of his *got*. In return for his labour each *paik* was allowed 8 *bighas** of *rupit* land, and the land, occupied by his house and garden, which is now called *basti*, free of revenue. Any land taken up in excess of this amount was assessed at As. 4 a *bigha*. In addition to this the villagers paid a poll-tax of one rupee for each adult *paik*.

Early settlements. The earliest land revenue report of Lakhimpur available is one submitted by Major White in January 1835, though it is really a misnomer to describe it as a

* One acre=3·025 *bighas*.

land revenue report of Lakhimpur, as practically the whole of the district at that time was under native rule. In Purandar Singh's territory the *paiks* paid a capitation tax of Rs. 3 a head, in return for which they were allowed to cultivate 8 *bighas* of land. The system of organized compulsory labour seems to have fallen into disuse, though probably the Raja obtained all the labour he required free of charge. In Matak the people made presents to the Bor Senapati in kind, and a certain amount of labour was at his disposal. *Paiks* migrating from the territory of Purandar Singh paid in cash instead of kind, and such migration was encouraged by the assessment of a much lower rate than that prevailing in the Raja's territory. The revenue of the Sadiya-khoa Gohain, was obtained, like that of the Matak chief, from presents and occasional forced labour. In 1853, the revenue in Upper Matak was still collected in the form of a poll-tax of Rs. 2 on every able bodied man; but the population was extremely sparse and the gross demand only amounted in the previous year to Rs. 3,012. In North Lakhimpur and in Lower Matak, the rates assessed were 3 annas a *bigha* for *rupit* (land fit for the growth of transplanted rice) and 2 annas a *bigha* for other land. In Sadiya and Saikhoa they were one anna a *bigha* higher. The land revenue assessment of the district in 1853 was less than half a lakh, and the amount realized from poll-tax was only some Rs. 5,000 more.

Colonel Hopkinson's settlement.

In 1865, the Commissioner, Lieutenant-Colonel Hopkinson, proposed to discriminate between *basti* or garden and other land, and to raise the *bigha* rates to Re. 1

for *basti*, 10 annas for *rupit*, and 8 annas for other land. No detailed enquires were made, there was no attempt to estimate the comparative value of the three different classes of land, there was no discrimination between good and bad land in the same class, or even between the different districts in the valley. The revised rates were, however, so moderate that it was never seriously contended that, they would have an oppressive incidence even on the worst land on which they were imposed. Colonel Hopkinson was of opinion that the existing assessment was ridiculously low, and to support his contention, pointed out that in 1864-65 the receipts from opium were about 4 lakhs of rupees more than the total land revenue of his division, an excess which in those days represented a difference of about 40 per cent. The new assessment was successfully introduced in 1868-69, and in spite of the great enhancement* the revenue was collected without difficulty.

One very effective protest was, however, entered by the raiyats, who resigned so large a proportion of their land that the revised rates, though nearly double of those previously in force, only brought out an enhancement of about 26 per cent. in the gross revenue. But the land resigned was speedily retaken, and the land revenue demand of 1871-72 was nearly double that of the year preceding the re-assessment.

The settlement of 1893-94. The next settlement was made in 1893. The three-fold division of land was retained, but instead of im-

* The land revenue of Assam Proper was raised from Rs. 12,89,000 to Rs. 20,78,000.

posing the same rate on all land of the same class throughout the district, the villages were divided into four grades, and the rates assessed varied with the grade of the village.* The villages were provisionally graded by the Director of Land Records and Agriculture, the class in which each village was placed being determined by the demand for land, and not by any intrinsic considerations of the value of the produce, the fertility of the soil, or the profits of cultivation. The demand for land was estimated by ascertaining the density of the population, the proportion of settled to unsettled land, and the proportion of fluctuating cultivation. These lists were sent to local officers for examination, and were modified by them in view of the fertility of the soil, the facilities for bringing the produce to market, and the rents paid by sub-tenants where ascertainable. This enquiry was carried out by the ordinary district staff within the space of a single cold weather, and the results obtained made no pretensions to scientific accuracy. Such accuracy was considered to be unnecessary, as it was not intended to impose anything like the maximum assessment on the land. The Government had no desire to assess up to its fair share of the value of the produce of the soil, and under these circumstances it was contended that it would be

* The following were the rates imposed—

	First class.		Second class.		Third class.		Fourth class.		
	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	
Basti ...	1	6	1	4	1	2	1	0	per bigha.
Rupit ...	1	0	0	14	0	12	0	10	"
Faringati ...	0	12	0	10	0	9	0	8	"

waste of time and money to have recourse to any minute and elaborate classification of the soils, to crop experiments on a large scale, or to a close examination of all the elements that affect the net profits of the cultivator. The theory on which the settlement was based, was, that the worst lands were capable of bearing the assessment imposed, and that Government alone was a loser by its inequalities.

Expansion of the land revenue. The following statement shows what an extraordinary development there has been both in the settled area and the land revenue demand during the past fifty years. The one has increased five fold, the other, thanks to the gradual raising of the rates, by twice as much. This enormous development is principally due to British enterprise, which has imported coolies in thousands to develop the natural resources of the district. The raiyat has had every inducement offered to him to extend his operations, and the cultivating classes have been reinforced not only by the increasing number of their own sons and daughters, but by the diligent immigrant from Bengal.

A D	Rs.	Acres.
1851-52	55,118	76,789
1865-66	1,13,651	129,428
1868-69	1 33 002	not available
1892-93	2,75,853	298,901
1893-94	3 70 124	310,915
1902-03	5,79,051	414,228

Poll Tax. A relic of the former revenue administration is still to be found in the poll tax of Rs. 3 per adult male, which is assessed on Miris who have settled in the plains. They

live for the most part in the *chapori* tracts, grow summer rice and mustard, and seldom plough the same field for more than two or three years in succession. They are gradually settling down to the cultivation of transplanted rice, in holdings which are kept on permanently from year to year, and, when in any village the area under permanent cultivation is sufficiently extensive to render it profitable to assess it in the ordinary way, the poll tax is abolished and land revenue substituted in its place.

Established and fluctuating cultivation.

The system of cultivation in the district falls into two main heads, established and fluctuating. In the established area the staple crop is *sali* or transplanted paddy, land is not readily resigned, and frequently possesses a considerable market value. In the fluctuating tracts the staple crops are mustard, pulse, and summer rice (*ahu*), and continual change is one of the essential elements of cultivation, the same field being seldom cropped for more than three years in succession. This fluctuating area is confined to high lands and to a belt on either side of the Brahmaputra, and along the banks of the larger rivers that flow from the hills through North Lakhimpur. Only about 9 per cent. of the total settled area of Lakhimpur is classed as fluctuating, a proportion which is much lower than that found in the districts of Lower and Central Assam. There is a marked difference in the distribution of this fluctuating area between the two subdivisions. In Dibrugarh the fluctuating area is less than 1½ per cent. of the total settled area. In North Lakhimpur it is nearly 39 per cent.

Annual and periodic leases. The bulk of the land on which the staple crops of the district are grown is held direct from Government by the actual cultivators of the soil on annual or periodic lease. The periodic lease confers a right of re-settlement and a heritable and transferable title. Annual leases merely authorise the occupation of the land for a single year, though in practice the rights of transfer, inheritance, and re-settlement are recognized. The only drawback of the annual lease lies in the fact that, if the land happens to be required by Government, it can be resumed without payment of compensation to the occupant. Land held under either form of lease, or any individual field within the holding, can be resigned, on formal notice of the fact being given to the Deputy Commissioner or Subdivisional officer.

The mandal The basis of the land revenue system is the mandal, the village accountant and surveyor who draws a modest stipend ranging from Rs. 8 to Rs. 12 per mensem. In March he inspects the fields which have been formally resigned to see whether they have been actually relinquished, tests the boundaries of fields taken up in recent years to see whether they are in accordance with the map, and surveys land which has been broken up for what is called the regular settlement, or for which a formal application has been filed. His two principal registers are the *dag-chitha*, in which particulars are entered for each field within the village, and the *jamabandhi* or rent roll, which classifies the fields by holdings, and shows the area covered by each lease. During the hot wea-

ther he is occupied with the revision of his maps and registers, and the preparation of his leases. When the winter comes, he again proceeds to the field, distributes the leases he has prepared, and surveys the land which has been broken up since his former tour, and which is included in what is known as the *dariabadi* or supplementary settlement. He is also required to prepare statistics of the area under different crops, he assists in the collection of the revenue, and is often ordered to report on local disputes connected with the land.

In most Provinces in India, a settlement is concluded for a term of years. During its currency no land which is held on lease can be resigned, and there is not as a rule any appreciable quantity of waste land to be taken up. The state of affairs in Lakhimpur is very different. In 1902-03 the total settled area was 414,228 acres, the area excluded was 14,000 acres, and the area of land newly taken up 21,885 acres. The area of land resigned is, for Assam, comparatively small. This is due to the fact that the level of the district as a whole is fairly high, and to the absence of any pressure on the soil which enables the villagers to exercise a certain amount of discrimination in their choice of land.

The area taken up and resigned in 1900-01, and subsequent years in each of the subdivisions will be found in Table XII.

Above the mandal comes the supervisor kanungo, a peripatetic officer, on pay ranging from Rs. 30 to Rs. 40, **Superior settlement, staff.**

who checks the mandal's work, both in the field and in the office. The superior revenue officers are called sub-deputy collectors, and draw salaries ranging from Rs. 100 to Rs. 200 per mensem. Appointments to this grade are usually made by selection from candidates who must be of good physique and moral character, of respectable family, under 25 years of age, and must either have taken a university degree, or have read up to that standard. The total sanctioned staff for the Lakhimpur district is two sub-deputy collectors, six supervisor kanungoes, and 113 mandals. In cadastral areas the average size of a mandal's charge is about six square miles of settled land.

Land tenures.

The different tenures in the district fall under two main classes—(1) those under which land is held for the cultivation of ordinary crops and (2) those under which grants have been made for the growth of tea or other crops, which are not included amongst the ordinary staples of the Province, and which require a considerable amount of capital for their production. The bulk of the land included in the first class is settled under the ordinary rules at full rates, and the area so settled from year to year will be found in Table XV. The area of land held free of revenue *(lakhiraj)* or at half rates *(nisfi-khiraj)*, is very small. These estates represent grants made by the Ahom Rajas and confirmed by the British Government. The manner in which some of them became assessed to revenue is described in the Gazetteer of the Sibsagar district. A small area of 141 acres is also held revenue free by Katakis, a class

of men who are supposed to act as the intermediaries between Government and the hill tribes.

Grant of land for the cultivation of special crops.

Two sets of rules were in force for the grant of land for tea prior to 1862. The underlying principal in each case, was that the land should be held on long leases at low but progressive rates of revenue, and that precautions should be taken against land speculation by the imposition of clearance conditions. Between 1862 and 1876, the fee simple tenure of waste land grants was put up to auction at an upset price of Rs. 2-8 an acre, which in 1874 was raised to Rs. 8. The holders of grants under the earlier rules of 1838 and 1854 were also allowed to purchase a fee simple tenure by payment of twenty times the revenue then due, provided that the clearance conditions had been carried out. Advantage was very generally taken of this concession, and there is no longer in the district any land held under the rules of 1838 and 1854, while there are 117,000 acres held on fee simple tenure. The existing rules came into force in 1876. The land is sold at an upset price of Re. 1 per acre, for, though it is nominally put up to auction, there is no case on record in which more than one applicant appeared to bid. For two years the grant remains revenue free, and the rates gradually rise to 8 annas an acre in the eleventh, and one rupee in the twenty-first year. The lease runs for 30 years, and when it expires the land is liable to re-assessment. The total area settled under these rules in 1902-03 was 71,000 acres. Details by subdivisions and for later years will be found in Table XV.

Land revenue collection. In the early days of our administration land revenue was collected through the agency of the mauzadar. He received 10 per cent. of the collections for his trouble, and was assisted by a Kakati or village accountant, who received 5 per cent. The peons employed were remunerated by grants of land, and in Lower Matak the mauzadar received an extra 2 per cent. in land. In 1853 there were 87 mauzas, but the majority of these fiscal units were very different from the mauza of to-day. In no less than 26 the total revenue demand was less than Rs. 100, and in no single case did it amount to as much as Rs. 3,000.

Larger mauzas and tahsils. The general tendency since that date has been to increase the size of the unit of collection. In 1867, the mauzadars, as the collecting officers were called, received 15 per cent of the revenue as commission, and were allowed half the revenue of land reclaimed during the currency of the settlement. Three years later their commission was reduced to 10 per cent. and in 1872, the further restriction was imposed that this 10 per cent could only be drawn on the first Rs. 6,000 of revenue, 5 per cent being allowed on revenue in excess of that sum. In 1883, steps were taken in Lower Assam to replace the mauzadar by a salaried officials. Mauzas were accordingly amalgamated and placed in charge of an official called a tahsildar, who was remunerated by a fixed salary, and was exempted from the responsibility imposed upon the mauzadar of paying in the revenue on the due dates, irrespective of the amounts actually collected by him. Only one tahsil was, however, opened

in Lakhimpur, *i.e.*, at Dibrugurh in 1896, and, as the results obtained were not satisfactory it was broken up into its constituent mauzas in 1904.

Compulsory realization of revenue.

The revenue demand on account of the regular settlement is due in two instalments, three-fifths on January 15th and two-fifths on the 15th February, except in those villages which meet the Government demand from the sale, of mustard and pulse, when it is due in one instalment on March 15th. The demand on account of the supplementary settlement is also due in one instalment on that date. If a raiyat defaults, a notice of demand is issued calling upon him to pay up the amount due.* This usually has the desired result, but if further steps are called for the defaulters' property is attached. It is very seldom necessary to do more than this, but, as a last resort, the goods and even the lands of the defaulter can be sold. The number of cases in which an estate is put up to auction is comparatively small, and it is not unfrequently the case that, even when advertised for sale, it attracts no bid. Land is so plentiful in the Assam Valley, that in many places it has no selling value, and in the more densely settled areas, where it would fetch a considerable price, it seldom comes to the hammer. The following statement which contains the figures for 1902-03, shows the extent to which coercive processes are employed, and how seldom it is necessary to actually sell the property

* Steps have recently been taken to empower the Deputy Commissioner to dispense with the notice of demand if he considers it desirable to do so.

of the defaulter. Imprisonment in default of payment of land revenue is not permitted by law in Assam.

	Rs.
Current land revenue demand	5,79,051
Arrears for which notice for demand issued	84,720
Amount of arrears paid on receipt of notice	47 855
Arrears for which property attached	39 740
Arrears for which sale notice issued	8 665
Arrears for which property sold	2,284

Town Land.

Special rules, it is hardly necessary to say, are in force for the settlement of town land. Dibrugarh is the only town, and it was settled for a period of 15 years in 1893. The rates assessed vary from Rs 150 an acre for first class trade sites, and Rs. 18 an acre for the best residential land, to Rs. 6 per acre for land cropped with rice. Under the rules now in force waste land taken up for the first time within town limits is to be settled ordinarily for a term of thirty years, at a fair rent not exceeding the annual letting value of the site. The lease of the land applied for may, if the Deputy Commissioner thinks fit, be put up to auction and knocked down to the highest bidder. In North Lakhimpur, which is really no more than a prosperous village, town land is assessed at Rs. 6 per acre, or double the rate ordinarily imposed on first class *rupit* land.

Area of unsettled waste.

The following abstract shows the total area of the district within the Inner Line, the settled area, and the area of reserved forests in 1902-03, and the area of waste land at the disposal of Government in that year.

	acres.
Total area of the district	2,898,560
Settled area	414,228
Area of reserved forests	217 522
Area of waste land	2,266,810

No less than 77 per cent. of the total årea of the district falls in the latter category, but it must not be supposed that the whole of this area is fit for cultivation or human habitation. The figure includes the area of roads and of tracts that are permanently under water, of land which is submerged during the rainy season, and is hardly fit for permanent habitation, and of land which is too high or barren to be fit for the growth of food crops. It is useless to attempt to form any estimate of the proportion of the unsettled area in which cultivation could be carried on with profit, and it is hardly necessary to do so, as it is obvious that the district could support a much larger population than it now possesses. No less than 90 per cent. of the country north of the Brahmaputra is unsettled, Nokari being the only mauza in which any appreciable portion of the country has been taken up. In the sadr subdivision there are large areas of waste land towards the south and east, but the mauzas in the neighbourhood of Dibrugarh and the country through which the railway passes to Makum is densely peopled, and in this portion of the district comparatively little waste is still remaining. The settled and unsettled area in each mauza in 1902-03 will be found in Table XV A.

Excise, opium.

The excise revenue of Lakhimpur is very large, and from Table XIV it will be seen that, at the present day it amounts to about Rs. 7,75,000, or some two lakhs more than the total land revenue of the district. About two-thirds of the whole is obtained from opium, the consumption of this drug being larger in Lakhimpur than is any other district of the Province.

Prior to 1860, no restriction was placed upon the cultivation of the poppy. The evil effects of unrestrained indulgence in opium were undeniable, and in that year poppy cultivation was prohibited, and the drug was issued from the treasury, the price charged being Rs. 14 a seer. This was raised to Rs. 20 in 1862, Rs. 22 in 1863, Rs. 23 in 1873, Rs. 24 in 1875, Rs. 26 in 1879, Rs. 32 in 1883, and Rs. 37 in 1890, the price at which it now stands.

While Assam was under the Bengal Government, licenses for the retail vend of opium were issued free of charge. In 1874, a fee of Rs. 12 per annum was levied on each shop, and in the following year it was raised to Rs. 18. Between 1877 and 1883 the right to sell opium in a particular mahal, or tract of country, was put up to auction, but this system was found to be unsatisfactory, and in the latter year the individual shops were sold as is done at the present day. The general result of the Government policy has been to largely reduce the facilities for obtaining the drug. In 1873-74 there were in the district 517 licensed shops. In 1902-03, though the population had in the interval increased threefold, there were only 140 shops, each of which paid on the average a license fee of over Rs. 700.

The statement in the margin shows the variations in consumption since 1873-74. In spite of the fact that between the first and last years of the series the duty was raised by more than 60 per cent., there has been very little decrease in consumption. There has, of course,

		Mds.
1873-74	...	383
1879-80	...	329
1889-90	...	359
1899 00	...	374

been a considerable increase in the indigenous population, especially of Miris,* a tribe who are much addicted to the drug, and it has been sometimes thought that there would have been an increase in consumption had it not been for opium smuggling. Opium can be sold retail in Lakhimpur for from Rs. 1,600 to Rs. 2,000 a maund. In parts of India it can be bought for very much less than this, so that the profits of the business would be very large and the risk comparatively small. In the summer of 1898 much attention was paid to this matter by the Deputy Commissioner, and a Marwari convicted of illegal practices was imprisoned and not merely fined. In 1898-99 the issues of treasury opium increased by 45½ maunds, and were nearly 32 maunds larger than the issues of any of the four preceding years, and it is possible, that there was some causal connection between the imprisonment and the increase in consumption. In 1901, a small preventive force consisting of one Inspector, two Sub-Inspectors, and five chaprasis was sanctioned for employment in the Province, but they did not succeed in discovering any evidence of opium smuggling on an extensive scale, and they have recently been amalgamated with the general excise establishment.

The drug is generally swallowed in the form of pills or mixed with water and drunk. Madak is made by mixing boiled opium with pieces of dried pan leaf, and stirring it over the fire. The compound is then rolled up into pills and smoked. Chandu is made out of

* Miris 1881, 11,687,—1901, 24,911.

opium boiled with water till the water has all evaporated, and is smoked like madak in the form of pills. Opium is not generally smoked in Assam, and this form of taking the drug is usually considered to be more injurious than when it is simply swallowed. Further details with regard to the number of shops in each subdivision, the quantity of opium issued, and the receipts both from license fees and duty in each year will be found in Table XVI.

Country spirit. The following statement shows that during the last twenty years of the century there was an enormous increase in the revenue derived from country spirits.

		Number of shops.	Revenue. Rs.
1879-80	...	11	4,814
1889-90	...	22	40,056
1899 1900	...	25	157,720

This would at first suggest that consumption had very much increased, that the liqour habit had spread amongst the people, and that persons who had once been moderate drinkers had taken to drinking in excess; but this is not the case. The prevalence of drinking is best measured by the increase in the number of shops. If this test be applied, it appears that while the foreign population, a large proportion of whom are liquor drinkers, has increased four fold,* the number of shops has little more than doubled.

The revenue is raised by putting up the right to manufacture and sell liquor at a particular shop to auction.

* Foreigners 1881 40 787 1901 152,856.

If there is no competition, the vendor obtains this license cheap, and his profits are enormous. Where there are several persons anxious to embark upon the business, the price of the license is run up, and a portion of the profits of the liquor trade is diverted from the pockets of the vendor into the exchequer of the State. The publican has little opportunity of pushing the sale of his liquor, and it is doubtful whether, if the license fees were abolished or reduced, the consumption of spirit would be in any way diminished.

It cannot be denied that, in the neighbourhood of some liquor shops, drunkenness and disorderly conduct are not uncommon, and the attention of the Administration, has been more than once directed to the most effective measures for the mitigation of this evil. One of the most serious obstacles to improvement, lies in the fact that, if the supply of licensed liquor is cut off, rice beer and spirit can be readily manufactured by the people. That this is no imaginary difficulty, is shown by the fact that complaints have more than once been received of excessive drunkenness on tea gardens, which were situated far beyond the reach of any licensed liquor shop. The outstill system has admittedly many drawbacks, and will be replaced, as soon as circumstances admit of it, by a system of central distilleries. The following measures have recently been introduced, with the object of reducing as far as possible the evils attendant on the liquor trade. A special excise establishment has been entertained, the vendor is required to arrange for an abundant supply of good drinking water

near his shop, and his license can be withdrawn if he is twice convicted of allowing drunkenness and disorderly conduct near the still.

The still. Country spirit is manufactured by native methods, and generally in what is known as the open still. The apparatus employed consists of a large brass or copper retort which is placed over the fire, to the top of which is fitted the still head, a compound vessel, part of which is made of earthenware and part of brass. The wash is placed in the retort, and, as it boils, rises in the form of vapour into the still head, over the outer surface of which a stream of cold water is continually kept flowing. As the vapour cools, it is precipitated in the form of liquid, and is carried off by a bamboo tube into a vessel placed at the side. The mouth of this tube is open, and the spirit trickles from it into the vessel beneath, so that the outer air has access by this channel into the still head and retort in which the process of distillation is going on. In the closed still, the vapour passes down two tubes into two receivers where it is cooled and condenses into liquid. These tubes are so fixed to the receivers that the air cannot have access to the spirit, and, though distillation dose not proceed so rapidly, the liquor produced is stronger than that obtained from the open still.

Material employed. The material employed is generally the flower of the mohwa tree (*bassia latifolia*), which contains a very large proportion of sugar, but its place is sometimes taken by molasses and rice. The following are the proportions in which these ingredients are generally

mixed—mohwa 30 seers and water 60 seers, or mohwa 25 seers, molasses 5 seers, and water 60 seers, or boiled rice 20 seers, molasses 10 seers, and water 80 seers. *Bakhar*, a substance composed of leaves, roots and spices, whose actual ingredients are not divulged by the villagers who manufacture it, is frequently added to the wash, which is put to ferment in barrels. Fermentation takes three or four days in summer and a week in the cold weather, and the wash is then considered to be ready for the still.

The process of distillation takes about three hours. A retort of 40 gallons yields two gallons of spirit in an hour and three quarters, three gallons in two hours and a quarter, and four gallons in three hours. The best and strongest spirit comes off first, and in the case of a brew of 30 seers of mohwa the first 3½ gallons will be classed as *phul*, if they are at once drawn off from the receiver. If they are allowed to remain while two more gallons are distilled, the whole 5½ gallons will be classed as *bangla*. The exact proportions vary, however, at the different shops, some distillers taking 4¼ gallons of *phul* or 5¼ gallons of *bangla* from 30 seers of mohwa. Occasionally only two gallons of spirit are distilled from 30 seers of mohwa, and the liquor is then called *thul*, is very strong, and is sold for one or two rupees a quart. *Thul* is also sometimes made by redistilling *bangla*. Only one kind of liquor is generally taken from each distillation, as, if the *thul* or *phul* were removed, the spirit subsequently distilled would be not only weak but impure. Strong liquor watered to reduce it to a lower

strength is not considered palatable, and it seems to be the usual practice to distil the liquor at the actual strength at which it will be sold. One disadvantage of the cheaper kind of liquor is that it will not keep, and in four or five weeks it is said to lose all it's spirituous qualities. The largest and most important liquor shops are those situated at Dumduma, Margherita, Bhati Bazar in Dibrugarh, Tinsukia, Balijan siding, and Graham Bazar in Dibrugarh. Further details with regard to the annual receipts from country spirits will be found in table XVI.

Laopani. *Laopani*, or rice beer, is the national drink of the unconverted tribes, and a special name, *modahi*, is applied to those who have to some extent attorned to Hinduism, but have not yet abandoned their ancestral liquor. It is also taken by some of the humble Hindu castes, and is largely used by garden coolies if facilities are not afforded to them for obtaining country spirit. The following is the usual system of manufacture followed. The rice is boiled and spread on a mat, and *bakhar* is powdered and sprinkled over it. After about twelve hours it is transferred to an earthen jar, the mouth of which is closed, and left to ferment for three or four days. Water is then added and allowed to stand for a few hours, and the beer is at last considered to be ready. The usual proportions are 5 seers of rice and 3 chattaks of *bakhar* to half a *kulsi* of water, and the liquor produced is said to be much stronger than most European beers. Liquor is often illicitly distilled from *laopani* or boiled rice, by the following simple method. An

earthen pot with a hole in the bottom is placed on the top of the vessel containing the *laopani* or rice, and the whole is set on the fire. The mouth of the upper pot is closed by a cone shaped vessel filled with cold water, and a saucer is placed at the bottom of the pot over the hole. The vapour rises into the upper of the two jars, condenses against the cold cone, with which the mouth is closed, and falls in the form of spirit on to the saucer beneath. Care must of course be taken to see that the various cracks are closed against the passage of the spirituous vapour, but this can easily be done with strips of cloth. No attempt is made to restrict the manufacture of rice beer in moderate quantities for home use, as any attempt to do so would certainly lead to corruption and oppression. In a matter of this kind the influence of the Hindu gosains, and the pressure of local village opinion has more effect than any direct action of the Government.

Ganja.

Ganja is usually mixed with water, kneaded till it becomes soft, cut into small strips, and smoked. Wild ganja grows very freely in Assam, but it is doubtful whether it is much used except as a medicine for cattle. It does not produce such strong effects as the ganja of Rajshahi, but the leaves are sometimes dried and mixed with milk, water, and sugar to form a beverage. The receipts from ganja amounted to Rs. 54,000 in 1904: further details as to the number of shops and the receipts in each subdivision will be found in Table XVI. Ganja is not much in favour with the Assamese, and the revenue derived under this head from the North

Lakhimpur subdivision, where the proportion of foreigners is comparatively small, is inconsiderable.

Income-Tax. The total receipts under the head of income-tax in 1904 amounted to Rs. 49,734, about three-fifths of which were derived from the salaries paid to the Managers of tea gardens and their staff. The receipts under the head of "Other sources of income" amounted to Rs. 12,740 paid by 316 persons, five-sixths of whom were engaged in commerce and trade. The receipts under this head would, moreover, have been higher, were it not for the fact that some of the weathiest firms of kaiyas pay income-tax in Calcutta on the profits made in Lakhimpur. The lists of assessees are annually examined by the local revenue officials, and checked by the subordinate magistracy, before final orders are passed by the Deputy Commissioner. The district is a progressive one and the receipts under the Act rose from Rs. 22,800 in 1888 to Rs. 59,600 in 1903. The tax on salaries paid by Companies and private employers rose from Rs. 15,200 to Rs. 34,100, and on other sources of income from Rs. 4,400 to Rs. 19,800. The decrease that occurred in the following year was due to Act XI of 1903, which raised the minimum taxable income from Rs. 500 to Rs. 1,000 per annum.

Stamps. The receipts from stamps in 1904 amounted to Rs. 67,000, rather more than half of which was realized from judicial stamps. Sibsagar is the only district in the Assam Valley in which the receipts under this head are larger than in Lakhimpur.

Public Works. Public Works are in charge of an Executive or Assis-

tant Engineer, who is usually assisted by four upper and two lower subordinates. The Public Works Department are entrusted with the construction and maintenance of all the larger public buildings. The most important are the jail, the public offices, the buldings occupied by the military and the military police, schools, and post and telegraph offices at district and subdivisional head-quarters, official residences for Government officers, circuit houses, dâk bungalows, and rest houses on provincial roads. Rest houses on other roads are maintained by the Local Boards. The roads maintained by the department have already been enumerated in the section dealing with Local Boards, and it has been explained that Local Board works that require professional skill or engineering knowledge are usually made over to the Executive Engineer for execution. The principal difficulties with which the department has to contend are the absence of an artizan class, and the scarcity and dearness of unskilled labour. It is to these two causes that the heavy cost of public works in Lakhimpur is largely due.

Government

For general administrative purposes the district is divided into two subdivisions. Dibrugarh is under the immediate charge of the Deputy Commissioner, and North Lakhimpur is entrusted to an Assistant Magistrate who is almost invariably a European.

The Deputy Commissioner is allowed two subordinate Magistrates and a sub-deputy collector as his immediate assistants, and a sub-deputy collector is usually posted at North Lakhimpur.

Criminal and Civil justice.

Appeals lie to the Deputy Commissioner from the orders passed by Magistrates of the second or third class, and from the orders of first class Magistrates to the Judge of the Assam Valley. Appeals from the Judge lie to the High Court of Fort William at Calcutta. In 1902, there were eight Stipendiary and seven Honorary Magistrates in the district, and the former decided 1,645 and the latter 130 original criminal cases. In the course of these proceedings 3,975 witnesses were examined. Altogether there were 1,294 cases under the Penal Code returned as true, the immense majority of which were either offences against property or the human body. Of recent years the number of cases of murder and culpable homicide in Lakhimpur has been unusually large. In the ten years ending with 1899, the average was 9 per annum, and in 1897 there were 19, and in 1900, 18 cases of this the most serious of all crimes. The total number of lives sacrificed is, perhaps, not very large, but in proportion to the population of the district it is most excessive. In 1897, there was one true case of murder or culpable homicide for every 19,000 people.* In the Province of Bengal in 1901 the proportion was one for every 134,000 people. Judged by the far from satisfactory test of the value of the property reported to be stolen, Lakhimpur is well up to the provincial standard for theft and burglary, and if anything a little in advance of it. The average value of the property annually stolen during the ten years ending with 1899 was about Rs. 20,000.

* The proportion is even worse than this figure would suggest, as the population of 1897 must have been considerably lower than that of 1901 on which these figures were worked out.

The civil work is not heavy and the Deputy Commissioner acts as Sub-Judge, while two of the Assistant Magistrates, of whom the Subdivisional Officer of North Lakhimpur is one, carry on the work of munsifs in addition to their other duties. In 1902, the Sub-Judge heard 31 original cases and 23 appeals, while 1,436 original suits were disposed of by the munsifs. Almost all of these cases were simple money suits, and nearly three-fourths of them were disposed of without contest.

Special rules are in force for the administration of justice in the Sadiya frontier tract, in the north-east corner of the Dibrugarh subdivision. The jurisdiction of the High Court is barred, and the Criminal Procedure Code is not in force. Justice is ordinarily administered by the Deputy Commissioner, the Assistant Political Officer in immediate charge of the tract, and by the village elders. The Deputy Commissioner may pass sentence of death, transportation, and imprisonment not exceeding 14 years, provided that no sentence of death, transportation, or imprisonment for seven years or upwards shall be carried into effect without the sanction of the Chief Commissioner. Petty criminal cases and civil cases in which natives of the frontier are concerned, are as far as possible disposed of by the headman of the village. The general policy of Government is to abstain from interference with the local customs, to discourage litigation, and to administer cheap and speedy justice, in which equity is not obscured by the intricacies of law.

Registration The Deputy Commissioner is also District Registrar, while one of the Assistant Magistrates acts as Sub-Registrar in both the subdivisions. The number of documents registered is, however, small, and in 1903 only amounted to 583.

Military. The garrison of Lakhimpur consists of the wing of a native infantry regiment whose head-quarters are at Dibrugarh, with a detachment stationed at Sadiya. In addition to the regulars there is a strong battalion of military police, described in the following section, whose duties are of a purely military character, and the volunteers. A corps of mounted infantry was first enrolled in Lakhimpur in 1882, with a strength of 54 members. Nine years later the volunteers in the four upper districts of the valley were formed into one corps, known as the Assam Valley Mounted Rifles, and in 1896 the Mounted Rifles were converted into Light Horse. The strength of the corps in 1903 was 312, 139 of whom were residing in Lakhimpur. The great bulk of the members of this corps are planters, and they form a really fine body of men, well mounted, well equipped, and of excellent physique, who in an emergency would be of great assistance in maintaining order.

Police.
Civil police. The civil police are in charge of a District or Assistan, Superintendent of Police. The sanctioned strength consists of 2 Inspectors, 18 Sub-Inspectors and 163 constables. Forty smooth-bore Martinis are allotted to Lakhimpur and a reserve of men is kept up at the district and subdivisional head-quarters, who are armed with these weapons and are employed on guard and escort duty

Up-country men, Nepalese, and members of the aboriginal tribes are usually deputed to this work, though attempts are made to put all the constables through an annual course of musketry. Table XIX shows the strength and cost of the police in 1881, 1891, and 1901.

The district is fairly free from serious crime and rural police are not employed. Such assistance as is necessary is given by the village elders or *gaoburas*. In addition to their regular duties in connection with the prevention and detection of crime, the police are required to check the returns of vital statistics, manage pounds, enquire into cases in which death has not been due to natural causes, to furnish guards and escorts, and to serve all processes in warrant cases. For police purposes the district is divided into ten investigating centres. The names of these stations with the force sanctioned for each will be found in Table XX.

Military police.

Dibrugarh is the head-quarters of the Lakhimpur military police battalion which has a sanctioned strength of 7 subadars, 8 jemadars, and 832 non-commissioned officers and men, under a Commandant, who is always a military man, and generally a Captain in the Indian Army. The battalion holds a chain of outposts along the frontier, to protect the plains from the aggression of the hill men. The strength of these posts in officers and men is shewn in brackets after their names. On the north-west there is North Lakhimpur (*34*), then comes Sisi (14), and Dijmur, a little to the north-east of Sisi (18). The next guard is

at Mekla nearly opposite Dibrugarh (18), east of that comes Lali (20), and then Sesseri (18) near the mouth of the Dihang. Sadiya is a strong post garrisoned by two native officers and 64 non-commissioned officers and men, and north of Sadiya come Dikrang (14), Difu (18), Kerempani (25), and Bomjur, which is our furthest outpost on the north-east, (30). On the extreme east in the direction of the Brahmakund is Sanpura (18), while in the south of the district near the Naga Hills there are outposts at Lungchang (21), and Jaipur (11). Garrisons are permanently stationed at North Lakhimpur, Sadiya, and Jaipur. Elsewhere the outposts are only held for six months, as, when the rivers rise in the rainy season, the hill men are unable to descend to the plains. The stockades are surrounded by a ditch, the earth from which is thrown up to form a bank. On the top of this is a bamboo palisade, and both bank and ditch are studded with *panjis*, or pieces of sharp bamboo, which form a serious obstacle to an unshod enemy, so that against a force unprovided with fire arms these outposts would be able to make a good defence. The battalion has a good war record, and has taken part in the Aka expedition of 1883-84, the Lushai expedition of 1890-91, the Manipur expedition of 1891, the Abor expedition of 1893-94, and the Mishmi expedition of 1899-1900. The service is not unpopular and recruits are fairly easily obtained, about 78 per cent. being Gurkhas, and the remainder members of the aboriginal tribes such as Garos, Rabhas, Meches and Kacharis. The number of resignations is, however, high, as men,

when they first join, find it difficult to live upon their pay, and Assam has many attractions for the Nepalese. At Dibrugarh and North Lakhimpur the battalion supplies guards for the treasury and jail. The men are armed with Martini Henry rifles mark IV, bayonets, and kukris. Table XXI shows the name of each outpost, the distance from head-quarters, and the strength by which it is held.

Jail.

The jail at Dibrugarh differs from most of those in the Province, in that the outer wall and almost all the buildings inside are composed of solid masonry. The principal sleeping wards are three in number, and there are other small detached buildings for the reception of the sick, and under trial, civil, and female prisoners. Outside the main wall there is on one side a large vegetable garden, and on the other an enclosure in which are situated the jail workshops. The following statement shows the accommodation provided for all classes of prisoners.

Male convicts	108
Under-trial	11
Hospital	8
Civil prisoners	4
Observation cells	6
Females	21
Total ...	158

The convicts are usually employed on oil pressing, bamboo and cane work, tailoring, weaving, carpentry and gardening, but the receipts from manufactures are not large. Males sentenced to more than one year's imprisonment, and females with a longer sentence than a

month, are transferred to Tezpur. In North Lakhimpur there is a small subsidiary jail of the usual type. The buildings are made of thatch, timber, and bamboos, and are surrounded by a bamboo palisade. They contain accommodation for 23 convicts, who are generally employed on oil pressing or gardening. Prisoners sentenced to a longer term than three months are transferred to Dibrugarh. Table XXII shows the population of each of these jails in 1881, 1891, and 1901, the death-rate, the profits from manufactures, and the expenditure per head.

Education. The first school opened in the district was the one at Dibrugarh, which was started in 1840, and was the nucleus from which the existing flourishing high school has been developed. Prior to the opening of this institution, education was almost unknown in Lakhimpur, and it is said that it was difficult to find a man, even amongst the upper classes, who knew how to sign his name.* In 1842, a school was opened in North Lakhimpur, but even in 1853 there were only six schools in the district, with 270 pupils on their books, the remaining four being situated at Dhakuakhana, Bardalani, Saikhoa, and Tengakhat. Progress continued to be very slow, or rather there was retrogression in the place of progress, as eleven years later the number of Government schools was still unchanged, and the number of scholars had fallen to 169. There was, however, an unaided Mission School in Dibrugarh, which

* Report on the Province of Assam, by A. J. Moffatt Mills, Calcutta, 1854 Lakhimpur. Appendix D.

was well reported on, and had some 70 or 80 pupils. Between 1864 and 1874 there was an enormous development of the whole system of education. In the short space of ten years the number of schools increased nearly ten fold, and the number of scholars almost as much. The following statement shows the progress made in the three decades ending 1900-01.

Year	Number of secondary schools.	Pupils.	Number of primary schools.	Pupils.	Total Number of pupils	Percentage under instruction to those of school-going age.	
						Males.	Females
1874-75	3	271	58	1,582	1.853	...	...
1880-81	6	551	53	1,703	2,254	15·52	0·22
1890 91	7	642	97	2,351	2,993	14·04	0·69
1900 01	13	1,243	202	4,184	5,427	17·55	0·97

Secondary education has made some strides, and the number of pupils in primary schools has, no doubt, increased, but not as rapidly as might have been expected. The proportion of boys under instruction to those of school-going age was positively lower in 1891 than it had been ten years before. Though the same cannot be said of the first year of the century, the increase in the percentage was very small, and barely one out of every six potential scholars was at school. This stagnation in matters educational is no doubt partly due to the presence of a large coolie population, whose children assist their parents from an early age.

In 1901, 62 per mille of the male population were returned as literate, a proportion which was higher than that in any district in the Assam Valley except

Kamrup. A large proportion of the educated classes are, however, foreigners, and more than half the literates were literate in Bengali or other foreign languages. It is difficult to measure the growth of literacy in the district, as, prior to 1901, all persons under instruction were shown as "learning" whether they could read and write or not, while the fact that so many of the literates are foreigners serves to obscure the progress or decline of education in Lakhimpur itself. It is, however, clear that the aboriginal tribes, such as the Miris and Kacharis, and the lower Hindu castes who form the bulk of the indigenous population, are still but little impressed with the advantages of learning.

There is only one high school in the district, which is situated at Dibrugarh. The boys are taught from the earliest stage of their education up to the Entrance course as prescribed by the University of Calcutta, but many leave school without completing the course. Till recently English was taught in all the classes. The boys in the lowest class no longer learn that language, but the standard of instruction is higher than that prevailing in lower secondary (middle) schools. English is the medium of instruction in the first four classes of high schools, in the lower classes and in other schools the vernacular is employed. The course of instruction at middle English and middle vernacular schools is the same, with the exception that English is taught in the former and not in the latter. The following are the subjects taught in the middle vernacular course :—(1) Bengali or Assamese, comprising literature, grammar,

and composition, (2) History of India, (3) Geography, (4) Arithmetic, (5) Elements of Euclid (Book 1), mensuration of plane surfaces and surveying, (6) Elements of science. The Middle Schools are situated at Dibrugarh, Sadiya, Barbarua, North Lakhimpur, and Dhakuakhana.

Primary education is divided into upper and lower, but the proportion of boys in upper primary schools is less than three per cent. of the total number of boys in primary schools, and this class of school, like the middle vernacular, is showly dying out. The course of study in lower primary schools includes reading, writing, dictation, simple arithmetic and the geography of Assam. In upper primary schools the course is somewhat more advanced, and includes part of the first book of Euclid, mensuration, and a little history. The standard of instruction given still leaves much to be desired, but efforts have been recently made to improve it, by raising the rates of pay given to the masters. Fixed pay is now awarded at average rates of Rs. 8 per mensem for certificated, and Rs. 5 per mensem for uncertificated teachers, supplemented by capitation grants at rates ranging from 3 annas to 6 annas for pupils in the three highest classes. The number of Schools of each grade, and the number of pupils reading in them will be found in Table XXIII.

The only medical school in the Province is situated at Dibrugarh. The nucleus of the fund required for its construction and maintenance was found in a legacy of Rs. 50,000, which was bequeathed for this purpose

by Dr. Berry White, a gentleman who had resided for many years in the district, and was largely interested in tea planting. The school, which is under the management of the Civil Surgeon, was opened in 1900. The course extends over a period of four years, and the pupils are taught up to the standard of a civil hospital assistant. It is largely attended, but most of the students are either Muhammadans or Bengalis, as the school has but few attractions for Assamese Hindus. There is also a survey school at Dibrugarh in which villagers receive a training which qualifies them for the post of village accountant or mandal. In addition to the village schools under Government management, boys living in the Buddhist villages are generally taught by the local priest how to read and write. The difficult Burmese character is, however, the one in which they usually receive instruction, so that they do not derive as much benefit from their labours as they might. As in the other plains districts of the Province female education has made very little progress, and the number of girls under instruction is less than one per cent. of the total number of school-going age.

Printing Presses. In 1903-04, there were four printing presses in the district, at two of which weekly papers in English were published.

Medical staff The district contains seven dispensaries, and is in the medical charge of the Civil Surgeon who is stationed at Dibrugarh. In addition to supervising the work done at these institutions, that officer is also Superintendent of the Berry White Medical School and of the Jail,

he controls and inspects the Vaccination Department, and is required to visit and report on all tea gardens on which the death-rate for the previous year has exceeded seven per cent.

Absence of rural sanitation.

The conditions under which the people pass their days are far from conducive to a long mean duration of life. Their houses are small, dark, and ill-ventilated, and the rooms in summer must be exceedingly close and oppressive. They are built upon low mud plinths, and are in consequence extremely damp, and the inmates instead of sleeping on beds or bamboo platforms which would cost them nothing to provide, often pass the night on a mat on the cold floor. Their attire, which is suitable enough for the warm weather, offers but a poor resistance to the cold and fogs of winter, and many lives are annually lost from diseases brought on by chills, which might have been avoided by the purchase of a cheap woollen jersey. The houses are buried in groves of fruit trees and bamboos, which afford, indeed, a pleasant shade, but act as an effective barrier to the circulation of the air, and increase the humidity of the already over-humid atmosphere. Sanitary arrangements there are none; the rubbish is swept up into a corner and allowed to rot with masses of decaying vegetation, and the complete absence of latrines renders the neighbourhood of the village a most unsavoury place. The water-supply is generally bad, and is drawn either from shallow holes, from rivers, or from tanks in which the villagers wash their clothes and persons. All of these are factors which contribute to produce a high mortality,

and there can be little doubt that, if the people could only be induced to observe even the simpler laws of health, the existing death-rate could be considerably reduced.

In comparison with Central and Lower Assam, Lakhimpur is, however, a very healthy district. The greater part of it consists of a wide plain lying south of the Brahmaputra, and for some reason or another it would seem that the south bank of the river, except in those parts where the Assam range projects into the valley, is much healthier than the country which lies to the north. The cold weather is extremely fresh and bracing, and is prolonged to a much later date than is usual in most parts of India, the rainfall is abundant, and the mean temperature of the year distinctly low.

Vital statistics. Little light is thrown upon the conditions of the district by the returns of births and deaths as they are so incomplete as to be practically useless. Vital statistics are reported by the *gaobura* or village headman to the mandal of the circle, this report being in theory submitted every second week. In practice they were received at much longer intervals, as the *gaobura* was an unpaid servant of Government, and not very amenable to discipline. It has recently been decided to allot to each *gaobura* $2\frac{2}{3}$ acres of land revenue free, and it will now be possible to enforce a stricter adherence to the rules. Between 1891 and 1901, with a rapidly growing population, the birth rate recorded on the mean population of the decade was 25 per mille, the death-rate 27 per mille, and it is obvious that both of these figures must

have been very much below the truth. In 1903, the birth-rate was 28 per mille, the death-rate 22 per mille, figures which, imperfect though they are, tend to confirm the view that the general health of the district is fairly good.

Causes of mortality.

Fever and bowel complaints are the forms which death most often takes in Lakhimpur, at any rate according to the official returns. These returns are, however, so incomplete, and so little reliance can be placed on the diagnosis of the reporting agency, that the figures hardly repay examination. Most fatal illnesses are accompanied by a rise in temperature, and the villagers, in consequence, ascribe many deaths to fever, which in reality are due to some other and specific form of disease. Epidemics of cholera from time to time produce a high mortality, for, though it is apparently endemic in the district, it occasionally breaks out with quite exceptional violence.

Cholera.

Death-rate per mile.	
1886	... 5·7
1888	... 5·6
1889	... 5·8
1895	... 5·4

The abstract in the margin shows the recorded death-rate from this cause in the years when cholera was most prevalent. Small-pox also appears from time to time in a virulent form. The highest death-rates per mille recorded from this disease during recent years were 4·2 in 1896 and 2·3 in 1897. Vaccination, has, however, made considerable progress amongst the people, and small-pox is not as a rule responsible for many deaths.

Other diseases.

The most common form of fever is a quotidian fever of malarial origin, but tertian and quartan fevers also occur. Dysenterv and diarrhœa, which are generally

caused by variations in the temperature and impure food and water, are responsible for many deaths. Skin diseases and worms are very common, but goitre and elephantiasis are seldom seen. Venereal diseases are common in Dibrugarh, and amongst the immigrant population, but are said to be rare amongst the Assamese. Plague made its first appearance in the Brahmaputra Valley in May 1903. The first case occurred in that portion of the Dibrugarh bazar which is inhabited by Marwari merchants, who import large quantities of grain, and it is supposed that it was through this grain that the plague bacillus was brought into the town. Altogether 37 cases with 28 deaths were reported, the last case occurring in June 1903. Since that date the disease has not made its appearance in any portion of the district. A special medical officer was appointed to have charge of the preventive operations, vigilance committees were formed in Dibrugarh, and every endeavour was made to gain the sympathy and co-operation of the people.

Native methods of midwifery. But if the majority of people leave the world without the assistance of a doctor, the same must be said of the way in which they make their entry into it, and it is to be feared that owing to the absence of properly qualified assistance, there is considerable preventible mortality alike amongst mothers and infants. There are very few professional midwives amongst the Assamese, and a woman in her confinement is generally attended by her relatives or friends. In difficult cases they can render little help, and recourse is had to

Heaven for assistance. A goat or duck is sacrificed, and *mantras* are tied round the neck and arm of the woman, or inscribed on a brass vessel which is placed where her eyes can fall upon it. In cases of false presentation attempts are made to drag the child out by anything that offers, and the abdomen is kneaded in the hope that the fœtus may be expelled. In the absence of medical aid, and this aid is seldom to be obtained, the mother in such cases generally dies. The confinement sometimes takes place in a small hut which has been specially constructed for the purpose, and the patient's bed generally consists of an old mat laid on the floor. The unfortunate mother receives practically no assistance; if the labour is a natural one all is well, but if complications arise, the case has usually a fatal termination. Many lives are also lost owing to a disregard of the rules of cleanliness which are of such paramount importance in these cases. The nucleus of a professional midwife class is, however, to be found in the *bejinis* or female doctors, women who receive a small remuneration for attending cases and practise beyond the limits of their own villages.

Increase in facilities for obtaining medical aid.

Though there can be little doubt that many lives are annually lost which could be saved by proper treatment, it is satisfactory to know that of recent years there has been a great increase in the facilities for obtaining medical aid, and in the extent to which the people avail themselves of the advantages now offered to them. From the following abstract it appears that for every patient treated in 1881, there were 17 in 1901, while the

number of operations performed rose from 106 to 865.

	Dispensaries No.	Patients treated. No.
1881	3	2,990
1891	2	10,834
1901	6	52,196

In 1904 it was decided to open five new dispensaries in the district.

The principal dispensaries are those situated at Dibrugarh and North Lakimpur, which had a daily average attendance in 1903 of 173, and 38, respectively. The Dibrugarh hospital is a large and very popular institution, containing no less than 98 beds, which in 1903 had a daily average of 68 in-patients. The diseases for which treatment is most commonly applied are malarial fevers, dysentery and diarrhœa, worms, skin diseases, and rheumatic affections. The number of patients treated at each dispensary in 1900 and the succeeding years will be found in Table XXVI. In considering these figures, it must be borne in mind that over a third of the total population of the district are living on the tea gardens. On every garden there is a hospital and dispensary, a liberal store of medicines and medical comforts, and a native doctor who works under the supervision of a European medical man, so that the number of patients treated in the Government dispensaries are only drawn from two-thirds of the total population.

Surveys. A revenue survey on the scale of one inch to the mile was carried out in the district between 1866 and 1873. In 1884 a topographical map on the scales of four

miles to the inch was published, and it was revised and brought up to date in 1896. Between 1st October 1891 and 30th September 1892 the professional party carried out a cadastral survey on the scale of 16 inches to the mile, but their operations only covered some 270 square miles, and since their departure there has been a large extension of cultivation. A further area of 64 square miles has in consequence been surveyed by local agency, but in spite of this a very large area still remained unmapped in 1904.

APPENDIX.

LIST OF TABLES.

STATEMENT.—A.

LIST OF TEA GARDENS.

Serial Number.	NAME OF GARDEN.	NAMES OF OWNERS.	Mauza in which situated.	Approximate distance by road from subdivisional head quarters.	Area in acres on December 31st, 1903.	Area in acres under plant (both mature and immature) on December 31st, 1903.	Labour force on December 31st, 1903.	REMARKS.
1	2	3	4	5	6	7	8	9
	DIBRUGAR SUB-DIVISION.			Miles.				
1	Athabari ..	Jakai Tea Co., London ..	Lahoal ...	7	Included in Lahoal.			
2	Bagmara ..	Jaipur Tea Co., Ld. ..	Jaipur ...	36	Do.	Do.	Jaipur.	
3	Balijan ...	Balijan Tea Co., Ld. ...	Tengakhat ...	22	1,303	853	1,275	
4	Balijan ...	Eastern Assam Tea Co., Ld. ...	Rohmoria ..	18	Included in Rohmoria Balijan.			
5	Bansbari ..	Mr. H. L. Smith ...	Larua ...	18	96	40	Not available.	
6	Barbam ..	Junctoli Tea Co., ..	Khowang ..	26	Included in Junctoli.			
7	Barbari ..	Rajmai Tea Co., Ld. ..	Dibrugarh ..	2	1,768	396	559	Includes figures for Lohitkata
8	Barbarua ..	Upper Assam Tea Co., Ld ...	Jamira and Khonikar (Mankata).	7	1,100	596	775	
9	Bardubi ...	Bardubi Tea Co., Ld. ..	Ujan Nakhankhola.	52	2,603	940	1,253	
10	Bazaltoli ..	Upper Assam Tea Co., Ld. ...	Rangagora ...	35	Included in Rangagora.			
11	Betjan ..	Ram Kanta Barua, Golap Chandra Barua and Ankarmal and Muriladhar Agarwalla.	Ujan Nakhankhola.	36	497	130	76	
12	Bhaman ...	Dihing Co., Ld. ...	Khowang ...	24	661	356	327	
13	Biheating ...	Dr. D. O'Brien ...	Jamira ...	6	905	430	404	
14	Bisakupi ...	DumDuma Tea Co., Ld. ...	Ujan Nakhankhola	45	3,077	2,543	2,422	Cols 6 and 7 include figures for Samdang.
15	Bogjan ...	Messrs. Macneill & Co. ..	Do. ...	36	Included in Dighultarung.			
16	Bogpara ..	Jakai Tea Co., London ...	Lahoal ...	6	Included in Bokel.			
17	Bokel ...	Jakai Tea Co., London ...	Do. ..	5	5,724	1,190	1,053	Includes figures for Bogpara, Chaulkhoa (22), Hiloiting, Jaka Nappa and Timona.
18	Boiye ...	Eastern Assam Tea Co. ...	Mankata (Khanikar).	9	1,872	152	141	
19	Budlabheta ...	Budlabheta Tea Co., Ld. ...	Ujan Nakhankhola	48	5,186	800	1,460	
20	Cacharibari ...	British Indian Tea Co., Ld. ...	Mankata (Khanikar).	4	Included in Sesa.		158	
21	Chabua ...	Chabua Tea Co., Ld. ..	Chabua ...	17	3,826	1,184	1,759	
22	Chaulkhoa ...	Jakai Tea Co., London ...	Mankata (Khanikar).	3	Included in Bokel.			
23	Do. ...	Messrs. King, Hamilton & Co. ...	Do. ...	3	366	220	362	
24	Chota Dewan ...	Mr. J. James Haly ...	Larua ...	11	Included in Lepetkata.			

LIST OF TEA GARDENS.—*Continued.*

Serial Number.	NAME OF GARDEN.	NAMES OF OWNERS.	Mauza in which situated.	Approximate distance by road from subdivisional head quarters.	Area in acres on December 31st, 1903.	Area in acres under plant (both mature and immature) on December 31st, 1903.	Labour force on December 31st, 1903.	REMARKS.
1		3	4	5	6	7	8	9
				Miles.				
25	Chota Hapjan ...	Messr. R. G. Shaw & Co., London	Ujan Nakhankhola	37	3,317	953	1,562	
26	Chota Mankata ...	Jakai Tea Co., London ...	Mankata ...	7	Included in Rowmari.			
27	Chota Tingri ...	Upper Assam Tea Co., Ld. ...	Tengakhat ...	35	294	200	170	
28	Chowkidinghi ...	Messrs. J. Anton and R. A. Collie	Dibrugarh and Mankata.	1	1,711	664	956	
29	Dahotia ...	Tengri Tea Co., Ld. ..	Tengakhat ...	38	Included in Hugrijan.			
30	Deohal ...	Planters' Stores and Agency Co., Ld.	Do. ..	37	2,124	570	745	
31	Deomulli ...	Deomulli Tea Co., Ld. ...	Ujan Nakhankhola	53	2,012	1,012	1,591	
32	Dewan ...	Eastern Assam Tea Co., Ld. ...	Larua ...	13	225	173	238	
33	Dheodam ..	Pabhojan Tea Co., Ld. ...	Ujan Nakhankhola	44	1,664	1,213	1,776	
34	Dholla ...	Messrs. R. G Shaw & Co., London	Do. ...	58	3,105	184	350	
35	Digholibari ...	Mr. W. S. Warren ...	Jamira ...	$3\frac{1}{4}$	154	117	171	Includes figures for Menaibari.
36	Dighultarung ...	Messrs. Macneill & Co. ...	Ujan Nakhankhola	38	3,996	600	986	Includes figures for Bogjan.
37	Dikam ..	Jakai Tea Co., London ...	Chabua ...	12	7,539	1,001	1,529	
38	Dinjan ...	Greenwood Tea Co., Ld. ...	Rangagora ...	24	2,786	886	1,234	
39	Ethelwold ...	Mr. J. Davidson ...	Dibrugarh ...	2	383	301	321	
40	Gorpara ...	Babu Bipin Behari De ...	Rohmoria ...	10	825	125	43	
41	Greenwood ...	Greenwood Tea Co., Ld. ...	Lahoal ...	9	1,500	1,000	1,265	
42	Hansara ...	DumDuma Tea Co., Ld. ...	Ujan Nakhankhola	43	6,091	1,735	2,996	Includes figures for Mairaguri, Messaijan and Pahukata.
43	Hapjan Parbat ..	Sewnarain and Sewnath ...	Jaipur ...	40	1,604	179	209	
44	Hattiali ...	Jakai Tea Co., London ...	Chabua ...	18	1,443	502	716	
45	Haveda ...	Babu Dhorjonarain Das ...	Ujan Nakhankhola	38	394	75	20	
46	Hazelbank ...	Mr. J. Davidson ...	Lahoal ...	13	1,637	328	266	
47	Hilika ...	Messrs. R. G. Shaw & Co., London	Ujan Nakhankhola	44	2,000	1,255	2,190	
48	Hiloiting ...	Jakai Tea Co., London ...	Chabua ...	17	Included in Bokel.			
49	Hugrijan ...	Tingri Tea Co., Ld. ...	Tengakhat ...	38	5,243	962	1,522	Includes figures for Dahotia.
50	Hukanguri ...	Messrs. R. G. Shaw & Co., London	Ujan Nakhankhola	40	3,544	992	1,803	
51	Hukanpukri ...	Jakai Tea Co., London ...	Rangagora ..	32	2,227	429	699	Includes figures for Lahorijan.
52	Itakhuli ...	Messrs. C. T. Strangways, Jas. Jameson and M. Jameson.	Do. ...	33	1,233	560	797	

53	Jaipur	Jaipur Tea Co., Ld.	Jaipur	36	5,616	706	922	Includes figures for Bagmara, Namsang and Tipam.
54	Jakai	Jakai Tea Co., London	Mankata	5	Included in Bokel.			
55	Junctoli	Junctoli Tea Co.	Jaipur	36	1,472	423	508	Includes figure for Barlam and Rajabari.
56	Kalijan	Jakai Tea Co., London	Lahoal	6	Included in Lahoal.			
57	Kanjikhoa	Budlabheta Tea Co., Ld.	Bagdang	21	491	452	695	
58	Keyheng	Tingri Tea Co., Ld.	Tengakhat	35	1,434	440	709	
59	Khamtigowali	Jakai Tea Co., London	Rangagora	25	Included in Panitola.			
60	Khanikar	Mrs. Sellar	Mankata	5½	776	402	589	
61	Kharjan	Kharjan Tea Co., Ld.	Bagdang	23	1,442	551	808	
62	Khobang	Khobang Tea Co.	Ujan Nakhankhola	50	2,196	1,076	1,964	Includes figures for Laina.
63	Khowang	Dihing Co., Ld.	Khowang	18	3,952	523	609	
64	Kotchujan	Jakai Tea Co., London	Rangagora	32	448	177	73	
65	Lahoal	Do.	Lahoal	6	3,252	931	715	Includes figures for Athabari, Kalijan and Sherewood.
66	Lahorijan	Do.	Rangagora	32	Included in Hukanpukri.			
67	Laina	Khobang Tea Co.	Saikhoa	51	Included in Khobang.			
68	Ledo	Messrs. R. G. Shaw & Co., London	Makum	70	1,473	450	756	
69	Lengri	Jakai Tea Co., London	Gharbandi	18	1,258	269	485	
70	Lepetkata	Mr. J. James Haly	Jamira and Larua	9	1,869	367	480	Includes figures for Chota Dewan, and Medlabari.
71	Limbuguri	Messrs. W. Robb and G. Ramsden	Rangagora	35	917	400	540	
72	Lohitkata	Rajmai Tea Co., Ld.	Dibrugarh	2	Included in Barbari.			
73	Longsoal	Sadiya Road Tea Co., Ld.	Ujan Nakhankhola	43	1,720	811	1,599	
74	Maijan	Upper Assam Tea Co., Ld.	Dibrugarh	6	4,402	1,670	1,551	Includes figures for Nagaghuli.
75	Mairaguri	DumDuma Tea Co., Ld.	Ujan Nakhankhola	43	Included in Hansara.			
76	Makalbari	Makalbari Tea Co., Ld.	Rohmoria	12	1,557	675	735	
77	Makum	Makum (Assam) Tea Co., Ld.	Makum	61	5,125	1,864	1,984	
78	Medlabari	Mr. J. James Haly	Larua	8	Included in Lepetkata.			
79	Menaibari	Mr. W. S. Warren	Mankata	4	Included in Digholibari.			
80	Messaijan	DumDuma Tea Co., Ld.	Ujan Nakhankhola	43	Included in Hansara.			
81	Mohanbari	Eastern Assam Tea Co., Ld.	Dibrugarh	5½	Included in Rajgarh.			
82	Moran	Moran Tea Co., Ld.	Khowang	27	2,845	1,336	1,496	Includes figures for Pathalipam, Sepon (114) and Tekarai.
83	Mothola	Mothola Co., Ld.	Dibrugarh and Lahoal.	4	1,208	458	489	
84	Nadwa	Upper Assam Tea Co., Ld.	Bagdang	14	490	490	484	Includes figures for Sengdora.
85	Nagaghuli	Do.	Lahoal	7	Included in Maijan.			
86	Nahorani and Dikhari.	Dikhari Syndicate, Ld.	Khowang	28	1,855	700	878	Includes figures for Sepon (115).
87	Naharkutia	Amalgamated Tea Estates Co., Ld.	Jaipur	26	801	476	544	
88	Nahartoli	Anglo-American Direct Tea Trading Co., Ld.	Lahoal	12	3,689	804	682	
89	Nakhroy	Nakhroy (Assam) Tea Co., Ld.	Rangagora	33	690	400	420	
90	Namrup	Amalgamated Tea Estates Co., Ld.	Jaipur	42	3,846	588	549	
91	Namsang	Jaipur Tea Co., Ld.	Do.	44	Included in Jaipur.			
92	Nappa	Jakai Tea Co., London	Lahoal	8	Included in Bokel.			
93	Oaklands	Messrs. Macneill & Co.	Do.	10½	1,595	606	871	
94	Pabhojan	Pabhojan Tea Co., Ld.	Ujan Nakhankhola	44	1,001	800	1,395	
95	Pahukata	DumDuma Tea Co., Ld.	Do.	43	Included in Hansara.			
96	Panahbari	Munshi Kefayetulla Ahmed	Bagdang	16	148	41	29	
97	Panitola	Jakai Tea Co., London	Do.	22	6,105	1,615	1,676	Includes figures for Khamtigowali.
98	Pathalipam	Moran Tea Co., Ld.	Khowang	28	Included in Moran.			
99	Phukanbari	Babu Haris Chandra Bagchi	Gharbandi	23	2,843	431	415	
100	Powai	Consolidated Tea and Lands Co., Ld.	Makum	55	4,024	1,576	1,597	

Serial Number.	NAME OF GARDEN.	NAMES OF OWNERS.	Mauza in which situated.	Approximate distance by road from subdivisional head quarters.	Area in acres on December 31st, 1903.	Area in acres under plant (both mature and immature) on December 31st, 1903.	Labour force on December 31st, 1903.	REMARKS.
1	2	3	4	5	6	7	8	9
				Miles.				
101	Rajabari ...	Junctoli Tea Co. ..	Jaipur ...	36	Included	in Junct	oli.	
102	Rajabheta ...	M. Baruah ..	Dibrugarh ..	4	255	250	260	
103	Rajgarh ...	Eastern Assam Tea Co., Ld. ...	Lahoal	4	1,248	376	430	Includes figures for Mohanbari.
104	Rangagora ...	Upper Assam Tea Co., Ld. ...	Rangagora ...	26	2,141	800	1,248	Includes figures for Bazaltoli.
105	Ridgeway ...	Mr. W. S. Warren ..	Chabua ...	16	Included	in Sealka	ti.	
106	Rohmoria Balijan	Eastern Assam Tea Co., Ld.	Rohmoria ..	18	2,386	1,046	583	Includes figures for Balijan (4).
107	Romai ...	Estates of the late Capt. Butcher, Messrs. J. H. Williamson, R. B. Magor and others.	Madarkhat ...	12	1,277	463	704	
108	Rowmari ...	Jakai Tea Co., London ..	Jamira ...	7	1,444	825	1,037	Includes figures for Chota Mankata.
109	Rungliting ...	Mr. A. Want ...	Madarkhat ...	11	502	212	211	
110	Rungmala ...	Babu Mohendra Nath Mitra ..	Rohmoria ...	20	1,433	174	46	
111	Samdang ...	DumDuma Tea Co., Ld. ..	Ujan Nakhankhola	47	Included	in Bisaku	pi. 2,433	
112	Sealkati ...	Mr. W. S. Warren ...	Chabua ...	16	1,570	970	1,416	Includes figures for Ridgeway.
113	Sengdora ...	Upper Assam Tea Co., Ld. ..	Bagdang ...	14	Included	in Nadw	a.	
114	Sepon ...	Moran Tea Co., Ld. ...	Khowang ..	32	Included	in Moran.		
115	Sepon ...	Dikhari Syndicate, Ld. ...	Do. ...	34	Included	in Nahor	ani and Dikhari.	
116	Sesa ...	British India Tea Co., Ld.	Mankata ...	7	1,082	605	727	Cols 6 and 7 include figures for Cacharibari.
117	Sherewood ...	Jakai Tea Co., London ..	Lahoal ...	6	Included	in Lahoal	.	
118	Singlijan ...	Mr. D. H. P. Madden ..	Madarkhat ...	11	1,350	250	174	
119	Sookerating ..	Messrs. R. G. Shaw & Co., London	Ujan Nakhankhola	44	1,087	870	1,567	
120	Talap ...	Messrs. R. G. Shaw & Co., London	Do. ...	50	5,803	1,592	2,609	
121	Tamulbari ...	Haribilas Agarwala ...	Madarkhat ...	10	865	230	202	
122	Tara ...	Tara Tea Co., Ld. ..	Ujan Nakhankhola	49	1,377	600	996	
123	Tarajan ...	Amalgamated Tea Estates Co., Ld.	Jaipur ...	41	3,292	292	361	
124	Tekarai ...	Moran Tea Co., Ld.	Khowang ..	27	Included	in Moran	.	
125	Thanai ...	Messrs. Macneill & Co., Calcutta	Rohmoria ...	14	2,349	500	470	
126	Timona ...	Jakai Tea Co., London	Madarkhat ...	5	Included	in Bokel.		
127	Tingkhang ...	Dihing Tea Co., Ld., ...	Jaipur ...	48	3,374	500	441	
128	Tipam ...	Jaipur Tea Co., Ld. ...	Do. ...	36	Included	in Jaipur	.	
129	Tiphuk ...	Jakai Tea Co., London ...	Ujan Nakhankhola	48	2,641	655	832	
130	Titadimaru ...	Messrs. A. E. & R. H. Macdonald ..	Lahoal ...	6	430	290	301	
131	Woodbine ...	Nakhroy (Assam) Tea Co., Ld. ...	Rangagora ...	30	1,490	493	614	

	NORTH LAKHIMPUR SUBDIVISION.							
1	Bardeobam ..	Jakai Tea Co., London ...	Bardalani ...	19	1,076	226	580	
2	Diju ..	Diju Tea Co., Ld. ...	Naobaicha ...	8	2,713	1,218	2,444	
3	Dulahat ..	Dulahat Tea Co., Ld. ..	Do. .	10	1,179	528	756	
4	Harmuti ..	Harmuti Tea Co., Ld. ..	Laluk ...	22	3,052	893	2,019	Cols 7 and 8 include figuers for Merbil aud Oahat.
5	Hulmari ...	Hulmari Tea Co., Ld. ..	Do. .	18	2,155	400	970	
6	Jaihing ..	Jakai Tea Co., London ...	Nakari ...	7	2,957	1,003	2,151	
7	Kadam ..	Kadam Tea Co., Ld. ...	Kadam ..	8	468	288	468	
8	Lillabari ..	New Cinnatoli Tea Co., Ld. ...	Do. ..	6	3,284	2,707	1,657	Includes figures for New Cinnatoli.
9	Madhupur ...	Messrs. Thomas Barlow & Bros. ...	Gohaingaon ...	35	500	153	151	
10	Merbil and Oahat	Harmuti Tea Co., Ld. ...	Laluk ..	19	1,350	Included	in Harmuti.	
11	New Cinnatoli .	New Cinnatoli Tea Co., Ld. ...	Nakari ..	2	Included	in Lillab	ari.	
12	Pathalipam ...	Jakai Tea Co., London ...	Kadam ..	22	2,039	633	1,324	
13	Silanibari ..	Mr. G. S. Reade & others ...	Naobaicha ..	7	1,617	1,028	2,060	

STATEMENT.—B.

List of Post offices.

Name of post office.	Mauza in which situated.	Name of post office.	Mauza in which situated.
Badati	Narayanpur ...	Makum Junction ..	Ujan Nakhankhala.
Barbarua	Jamira	Margherita ...	Makum.
Bardalani	Bardalani ...	Namrup ...	Jaipur.
Barhapjan	Ujan Nakhankhola	North Lakhimpur ...	Lakhimpur.
Chabua	Bagdang ...	Oaklands ...	Lahoal.
Dhakuakhana ...	Dhakuakhana ...	Panitola ...	Gharbandi.
Dibrugarh	Dibrugarh town ...	Pathalipam ...	Kadam.
Do. (Steamer ghat)	Do.		
Digboi	Makum ...	Rangagora* ...	Rangagora.
Dikam	Bagdang ...	Rihabari ...	Dibrugarh town.
Dum Duma*	Ujan Nakhankhola	Sadiya* ...	Sadiya.
Hulmari	Lalukdalani ...	Silanibari ...	Naobaicha.
Jaipur	Jaipur	Sisi	Sisi.
Jakai	Mankata ...	Talap	Saikhoa.
Kathalguri	Dhemaji ...	Tengakhat ...	Tengakhat.
Kathani	Narayanpur ..	Tingkhang ...	Jaipur.
Khowang*	Khowang ...	Tinsukia ...	Rangagora.
Lahoal	Lahoal	Tiphuk... ...	Ujan Nakhankhola.

* Combined post and telegraph office.

STATEMENT C.

List of villages in which there are three or more permanent shops.

Village.	Mauza.	Number of permanent Shops.
DIBRUGARH SUBDIVISION.		
Alimurgaon	Madarkhat	3
Bagaritalia	Rohmoria	3
Bairagimuth	Sadiya	3
Balijan	Tengakhat	5
Bargaon	Sisi Lakhimpur	4
Bar Medhigaon	Sadiya	3
Barlat	Rohmoria	3
Choikhama Bazar	Saikhoa	6
Dangori	Do.	3
Garparagaon	Rohmoria	3
Guijangaon	Rangagora	8
Habichukgaon	Madarkhat	3
Hatkhola Chabua Hatghor	Bagdang	3
Jakai Sesa	Dibrugarh Tahsil	3
Julipathar	Gharbandi	3
Lengeri	Khowang	3
Mahmari	Rohmoria	4
Margherita	Makum	6
Melengialgaon	Madarkhat	4
Nagaghuli	Dibrugarh	3
Natunbari	Tengakhat	4
Nij Bhaklajan	Gharbandi	3
Panimidi	Gharbandi	3
Panitola	Bagdang	10
Phakial	Phakial	3
Romaigaon	Madarkhat	3
Sadiya	Ssdiya	25
Saikhoa	Saikhoa	16
Sonawal	Khowang	4
Tengakhat	Tengakhat	7
Tinsukia	Rangsgora	30
NORTH LAKHIMPUR SUBDIVISION.		
Badati	Narayanpur	5
Baligaon	Dhakuakhana	3
Bardalani	Bardalani	11
Bengali Line	Narayanpur	4
Chaboti Faltogaon	Nakari	3
Gohain Jamuguri	Dhakuakhana	3
Jiamaria	Do.	4
Kamalabari	Nakari	5
Lechaigaon	Kamalabari	5
Nakari	Nakari	4
North Lakhimpur	Lakhimpur	—
Rangajan	Nakari	4

Statement.—D.

LIST OF MARKETS.

Place at which market held.	Mauza or Tahsil.	Place at which market held.	Mauza or Tahsil.	Place at which market held.	Mauza or Tahsil.
Dibrugarh Subdivision.		Duramora ...	Madarkhat.	Tinsukia ...	Rangagora.
Balibazar or Tengi-bazar.	Saikhoa.	Grahambazar—Held daily	Dibrugarh town	*North Lakhimpur*	*Subdivision.*
Balijan ...	Bagdang.	Guijan ...	Rangagora.	Barbam garden ...	Naobaicha.
Barbarua ...	Dibrugarh Tahsil.	Khatkhati ...	Khowang.	Barbil ...	Nakari.
Chabua ...	Bagdang.	Margherita ...	Makum.	Jorhati—Held daily	Naobaicha.
Chadura ...	Chabua and Polonga.	Nagaghuli ...	Dibrugarh Tahsil.	North Lakhimpur ...	Lakhimpur.
Chaikhama—Held every Saturday.	Saikhoa.	Rowmari garden ...	Do.	Pathalipam garden	Kadam Pathali-pam.
Dighalibazar—Held daily	Dibrugarh town	Sadiya—Held daily ...	Sadiya.	Salmari ...	Lalukdalani.
Dikam ...	Bagdang.	Saikhoa bazar ...	Saikhoa.		
Dumduma ...	Ujan Nakhan-khola.	Tengakhat ...	Tengakhat.		
		Tini Ali ...	Dibrugarh. Tahsil.		

Where not otherwise specified these markets are held on Sunday.

A unit should be taken to be a mauza unless otherwise specified.

TABLE I.

Average maximum and minimum temperatures in Dibrugarh.

	January.	February.	March.	April	May.	June.	July.	August.	September	October.	November.	December.	Year.
Maximum ...	70°·9	73°·5	78°·4	79°·2	84°·4	87°·1	88°·3	87°·1	87°·1	84°·6	79°·0	73°·4	81°·1
Minimum ...	48°·6	53°·6	60°·3	64°·9	70°·1	73°·2	75°·6	76°·0	74°·4	69°·5	59°·7	50°·2	64°·7

Note.—The figures have been compiled on the data for 3 years.

TABLE II.

RAINFALL

The number of years on which the average is calculated is shewn in brackets below the name of each Station.

MONTHS	Average rainfall in inches.							
	Pathali-pam. (13 years.)	North Lakhim-pur. (28 years.)	Dhakua-khana. (12 years.)	Dibru-garh. (39 years.)	Dum-Duma. (13 years.)	Sadiya. (30 years.)	Jaipur. (22 years.)	Mar-gherita. (16 years.)
January ...	1·84	1·88	1·20	1·49	1·42	1·65	1·65	2·14
February ...	2·82	2·28	2·21	2·53	2·86	2·91	2·80	3·12
March ...	4·57	4·62	4·96	5·54	6·64	6·77	6·51	7·34
April ...	9·33	10·24	10·19	9·84	10·34	10·29	10·20	10·66
May ...	18·37	18·50	13·02	14·18	12·62	12·43	11·99	10·99
June ...	29·89	22·87	17·72	18·26	14·55	15·27	15·25	15·04
July ...	36·08	21·83	16·86	20·01	19·68	18·99	17·86	18·12
August ...	30·29	20·47	15·33	18·66	15·61	16·47	17·02	16·93
September ...	24·59	17·33	11·99	13·61	10·62	11·32	11·40	10·99
October ...	8·57	6·54	6·38	6·05	3·92	4·61	3·91	4·22
November ...	0·58	0·85	0·46	1·11	0·43	0·93	0·61	0·70
December ...	0·98	0·66	0·65	0·83	0·45	0·61	0·63	0·52
Total of year ...	167·91	128·07	100·97	112·11*	99·14	102·25	99·83	100·77

* Does not agree with figure shewn on page 14 as the arrange has been revised since letter press was written.

TABLE III.

Distribution of Population by tahsils and mauzas.

Tahsil or Mauza.	Population in 1901.	Population in 1891.	Difference.	Area in square miles.	Population per square mile.	Number of persons censused on tea gardens.
Dibrugarh tahsil ...	83,412	58,699	+ 24,713	265·03	314	24,091
Khowang ...	13,116	9,025	+ 4,091	155·94	84	5,887
Bagdang ...	15,115	9,781	+ 5,334	80·55	187	3,903
Rohmoria ...	8,446	5,431	+ 3,015	47·81	176	4,366
Madarkhat ...	7,445	5,381	+ 2,064	38·66	192	2,941
Tengakhat ...	10,813	7,176	+ 3,637	83·31	129	4,875
Gharbandi ...	10,274	6,401	+ 3,873	57·60	178	6,458
Polonga and Chabua ...	7,556	4,803	+ 2,753	20·02	377	3,977
Jaipur	29,975	18,411	+ 11,564	356·70	84	6,037
Tipling and Tipling Khiraj	3,757	1,909	+ 1,848	136·41	27	1,808
Buridihing ...	1,619	1,239	+ 380	not available	...	......
Makum ..	9,481	4,758	+ 4,723	248·12	38	4,649
Phakial ...	1,031	955	+ 76	29·76	34	......
Rangagora ...	9,380	5,719	+ 3,661	109·91	85	6,168
Ujan Nakhankhola ...	40,935	20,484	+ 20,451	284·38	143	30,544
Saikhoa group ...	14,834	11,528	+ 3,306	191·31	77	9,773
Ujanbhati Sadiya ...	8,547	8,124	+ 423	78·08	109	......
Sisi ...	4,401	4,254	+ 147	186·93	23	......
Dhemaji ..	6,435	6,541	− 106	153·96	41	......
Lakhimpur Khirajkhat	6,954	6,244	+ 710	66·19	105	......
Gohaingaon ...	8,223	6,296	+ 1,927	133·55	61	273
Naobaicha ...	14,775	10,820	+ 3,955	186·87	79	8,308
Kadam ...	9,456	6,599	+ 2,857	154·51	61	2,701
Naokari and Kamalabari	10,554	8,271	+ 2,283	48·84	216	2,485
Bardalani ...	6,907	4,748	+ 2,159	115·97	59	1,012
Dhakuakhana ...	10,401	8,164	+ 2,237	104·78	99	......
Narayanpur and Khirajkhat	10,930	7,667	+ 3,263	182·79	59	......
Telahi Beteri ...	6,624	4,625	+ 1,999	93·53	70	......
Total district ...	371,396	254,053	+ 117,343	1,529·00(a)	82	130,256

(a) The area of the district was furnished by the Survey Department and does not tally with the sum total of the areas of tahsils and mauzas as the latter figures were obtained from the District Officer.

NOTE.—Where not otherwise stated a unit should be taken to represent a mauza.

TABLE IV.

General Statistics of Population by subdivision.

	Dibrugarh, Subdivision.		North Lakhimpur, Subdivision.		Total District.	
	Males.	Females.	Males.	Females.	Males.	Females.
Population 1901 ...	154,511	132 061	44,848	39,976	199,359	172,037
1891 ...	102,902	87,717	33,502	29,932	136,404	117,649
1881 ...	126,	143	53	750	96,335	83 558
1872 ..	44,386	37,723	20,306	18,852	64,692	56,575
Variation 1891–1901...	+51,609	+44,344	+11,346	+10,044	+62,955	+54,388
Variation 1881–1891 ..	+64,	476	+9,	684	+40,069	+34,091
Variation 1872–1881...	+44,	034	+14,	592	+31,643	+26,983
1901.						
Religion—						
Total Hindus ..	141,891	123,742	35,861	31,990	177,752	155,732
Mahapurushias ...	24,447	22,983	7,954	7,300	32,401	30,283
Other Vaishnavas ...	25,580	21,882	15,342	11,587	40,922	33,469
Saktists ...	32,528	30,035	7,399	6,287	39,927	36,322
Sivaites ...	1,401	958	3,487	3,233	4,888	4,191
Muhammadans ...	6,257	3,519	1,218	931	7,475	4,450
Animistic ...	2,796	1,894	6,886	6,397	9,682	8,291
Total Chirstians ...	1,398	1,029	373	312	1,771	1,341
Anglican Communion	594	392	22	7	616	399
Baptist ...	59	218	240	199	299	417
Minor denominations...	638	376	110	106	748	482
Other religions ...	2,169	1,877	510	346	2,679	2,223
Civil Condition—						
Unmarried ...	73,474	57,948	25,272	19,811	98,746	77,759
Married ...	69,770	58,920	16,760	15,365	86,530	74,285
Widowed ...	11,267	15,193	2,816	4,800	14,083	19,993
Literacy—						
Literate in Assamese ...	3,529	135	1,796	54	5,325	189
Do. in English ...	2,195	140	227	5	2,422	145
Illiterate ..	144,774	131,355	42,292	39,896	187,066	171,251
Languages Spoken—						
Assamese ...	49 630	46,353	23,754	26,378	73,384	72,731
Eastern Hindi ...	29,402	19,366	2,339	1,465	31,741	20.831
Bengali ...	36,428	36,683	3,567	3,113	39,995	39,796
Mundari ...	8,620	8,505	2,515	2,058	11,135	10,563
Miri ...	5,638	5,757	7,111	3,741	27,119	9,498

TABLE V.

Birth-place, race, caste, and occupation by subdivisions.

	Dibrugarh, Subdivision.		North Lakhimpur, Subdivision.		Total District.	
	Males.	Females.	Males.	Females.	Males.	Females.
Birth place—						
Born in district ...	73,632	69,797	31,428	30,131	105,060	99,928
" " other parts of Province ...	6,574	1,642	3,412	1,924	9,986	3,566
" " Chota Nagpur	29,287	31,114	5,391	4,488	34,678	35,602
" " other parts of Bengal ...	22,749	13,494	1,732	1,146	24,481	14,640
" " United Provinces ...	6,708	2,709	266	120	6,974	2,829
" " Central Provinces ...	7,852	9,172	1,437	1,522	9,289	10,694
" " Nepal ...	2,591	826	525	88	3,116	914
" Elsewhere ...	5,118	3,307	657	557	5,775	3,864
Race and Caste—						
Ahom ...	23,142	22,992	6,561	6,355	29,703	29,347
Bauri ...	2,641	3,561	147	204	2,788	3,765
Bhuiya ...	3,620	4,024	403	375	4,023	4,399
Bhumij ...	3,453	3,683	523	479	3,976	4,162
Brahman ...	2,159	639	635	375	2,794	1,014
Chhatri ...	2,025	2,943	454	208	2,479	3,151
Chutiya ...	5,361	4,407	3,957	3,823	9,318	8,230
Eurasian ...	27	10	...	...	27	10
European (*a*) ...	322	109	28	10	350	119
Goala ...	2,550	2,121	313	243	2,863	2,364
Kachari ...	11,225	9,380	2,486	2,072	13,711	11,452
Kalita ...	1,289	520	2,021	1,582	3,310	2,102
Kamar ...	2,730	3,094	344	363	3,074	3,457
Kayastha ...	936	626	110	72	1,046	698
Kewat and Kaibartta	1,038	1,094	1,528	1,401	2,566	2,495
Koch and Rajbansi	2,272	1,415	2,209	1,915	4,481	3,330
Miri ...	5,340	5,753	6,940	6,878	12,280	12,631
Munda ...	12,514	12,043	2,858	2,764	15,372	14,807
Nadiyal ...	5,632	3,820	2,619	2,345	8,251	6,165
Oraon ...	3,463	2,902	835	789	4,298	3,691
Santal ...	9,036	6,030	1,342	1,106	10,378	7,136
Tanti ...	2,925	2,648	216	194	3,141	2,842
Occupation—						
Workers ...	not	available.	not	available.	139,223	108,197
Dependents ...		"		"	123,	976 both sexes
Total supported—						
Landholders ...	65,142	59,631	32,929	30,823	98,071	90,454
Tenants ...	2,248	2,166	902	778	3,150	2,944
Garden labourers ...	57,607	56,636	7,270	6,839	64,877	63,475
General labourers ...	2,247	2,010	154	106	2,401	2,116

(*a*) Includes allied races.

TABLE VI.

Vital Statistics.

Year.	Population under registration in 1901.	Ratio of births per mille.	Ratio of deaths per mille.	Ratio of Deaths per mille from			
				Cholera.	Small-pox	Fever.	Bowels Complaints.
1901 ...	371,396	26·28	24·11	2·18	0·33	10·60	4·72
1902 ...	371,396	26·07	22·14	1·16	0·03	9·19	4·55
1903 ...	371,396	28·04	22·22	0·49	0·02	10·20	4·50
1904 ...	371,396	28·38	23·52	0·44	0·16	11·23	4·49
1905 ...							
1906 ...							
1907 ..							
1908 ...							
1909 ...							
1910 ...							
1911 ..							
1912 ...							

TABLE VII.

Crop Statistics.

PARTICULARS.	1900-01.	1901-02.	1902-03.	1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
TOTAL DISTRICT.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Total cropped area ..	235,225	247,619	253,087	257,821								
Total rice ..	128,984	136,225	141,910	147,556								
Mustard ..	6,399	6,842	6,780	8,012								
Sugarcane ...	3,975	5,410	4,746	3,499								
Pulse ...	3,365	5,832	4,513	6,149								
All other crops ...	92,502	93,310	95,138	91,605								
TEA.												
DIBRUGARH—SUBDIVISION.												
Number of Gardens .	138	134	131	130								
Area ...	171,147	173,268	176,414	193,457								
Area under plant ..	60,176	59,994	60,247	61,510								
Outturn in lbs. ...	23,034,843	23,499,784	26,209,045	27,076,381								
Labour force*	123,203	88,897	88,550	89,670								
Labourers including dependents imported during the year	8.051	...	9,231	7,966								
NORTH LAKHIMPUR—SUB-DIVISION.												
Number of Gardens ...	14	13	13	13								
Area ...	21,272	21,367	23,207	25,034								
Area under plant ...	8,514	8,999	9,077	9 081								
Outturn in lbs. ...	3,503,505	3,408,694	3,534,598	3,607,987								
Labour force* ...	16,793	12,524	11,556	11,179								
Labourers including dependents imported during the year	843	...	528	887								
TOTAL DISTRICT—												
Number of Gardens ...	152	147	144	143								
Area ...	192,419	194,635	199,621	218,491								
Area under plant held by Europeans	67,227	67,321	67,689	68,990								
Area under plant „ „ Natives	1,463	1,672	1,635	1,601								
Outturn in lbs. ...	26,538,348	26,908,478	29,743,643	30,684.368								
Labour force* ...	139.996	101,421	100,106	100,849								
Labourers including dependents imported during the year.	8,894	...	9,759	8,853								

* Figures for 1902-03 and the subsequent years relate to the period from 1st July to 30th June.

NOTE. The tea statistics are compiled for the calendar year and as such the figures relate to 1901 and the subsequent calendar years.

TABLE

Reserved

Name of Reserve.		Area in Sq. miles.	Character of Forests.	1900-01.	1901-02.
				Rs,	Rs.
North Lakhimpur Range.	Bharaloah ...	8	Plains and low hills, evergreen forests partially stocked, containing a few Uriam and Otenga.	6	128
	Kadam ...	21	Ditto ditto ...	*Nil.*	*Nil.*
Dibrugarh Range.	Dibru ...	88	Flat country, covered with evergreen forest, containing Ajhar, Sam and Hollock.	6	75
	Jakai ...	19	Flat country. Evergreen forest, one quarter stocked with Nahor.	622	614
	Dihingmukh	21	Flat country. Evergreen forests throughout containing Uriam, Nahor and Ajhar	121	176
Makum Range.	Jaipur ...	39	Low hills, one quarter partially stocked with Nahor.	601	181
	Upper Dihing, Western Block	144	½ plains, ½ low hills covered with evergreen forest with patches of Nahor throughout but predominating in the S. W.	255	326
	Upper Dihing, Eastern Block.		Ditto with less Nahor throughout.		

TABLE

Outturn and Value

DETAILS.		1900-01.	1901-02.	1902-03.	1903-04.
RESERVED FORESTS.					
Area in Sq. miles		340	340	340	340
Outturn (Government and purchaser only).					
Timber	cft.	12,932	16,400	7,400	870
Fuel	"	1,152	...	192	192
UNCLASSED FORESTS.					
Area in Sq. miles		2,512	2,499	3,099	3,062
Outturn (Government and purchaser only).					
Timber	cft.	455,622	504,457	523 425	584,023
Fuel	"	156,178	64,449	52,379	87,955
Rubber	Rs.	29,930	9,706	15,895	43,844
Forest receipts	"	80,961	66,667	84,046	124,267
Forest expenditure	"	32,545	28,895	26,726	26,573
Balance ...	"	48,416	37,772	57,320	97,694

VIII.

Forests.

RECEIPT.

1902-03.	1903-04.	1904-05.	19 5 06.	1906-07.	1907-08	1908.09	1909-10	1910-11.	1911-12.
Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs	Rs.
Nil.	*Nil.*								
6	*Nil.*								
42	3								
504	*Nil.*								
22	21								
52	6								
42	123								

IX.

of Forest Produce.

1904-05.	1905-06.	1906 07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.

TABLE X.

Prices of food staples in seers obtainable per rupee at selected marts.

		Dibrugarh.			North Lakhimpur.		
		Common rice.	Salt.	Mati-kalai.	Common rice.	Salt.	Mati-kalai
1880	2nd week of February ...	10	6	11	...	...	...
	2nd week of August ...	10	6	16	...	...	...
1890	2nd week of February ...	13	8	16	14	8	13
	2nd week of August ...	12	8	14	12	8	13
1900	2nd week of February ...	12	8	14	13	8	14
	2nd week of August ...	11	9	11½	10	8	10
1901	2nd week of February ...	10	8	10	10	8	14
	2nd week of August ...	9	8	12	7	8	8
1902	2nd week of February ...	11½	8	13	13	8	14
	2nd week of August ...	10½	8	13	9	8	13
1903	2nd week of February ..	11½	8	11½	11	8	13
	2nd week of August ..	9½	10	12	9	9	11
1904	2nd week of February ...	12	10	13	13	10	13
	2nd week of August ...	13	10	12	12	10	13
1905	2nd week of February ...	14	10	14	14	10	16
	2nd week of August ...						
1906	2nd week of February ..						
	2nd week of August ...						
1907	2nd week of February ..						
	2nd week of August ...						
1908	2nd week of February ..						
	2nd week of August ..						
1909	2nd week of February ..						
	2nd week of August ..						
1910	2nd week of February ...						
	2nd week of August ...						
1911	2nd week of February ...						
	2nd week of August ...						
1912	2nd week of February ...						
	2nd week of August ...						

TABLE

Statistics of Criminal

HEADS OF CRIME.	1902		1903.		1904.		1905.	
	True.	Detected.	True.	Detected.	True.	Detected.	True.	Detected.
DIBRUGARH SUBDIVISION.								
CRIMINAL JUSTICE.								
Number of cases.								
(i) Rioting or unlawful assembly. Sections 143-153, 157, 158, and 159 ...	10	10	7	7	5	4		
(ii) Other offences against the State, public tranquility &c. ..	9	5	12	11	6	4		
(iii) Murder, attempt at murder and culpable homicide sections 302-304, 307, 308, and 396	9	2	12	7	7	5		
(iv) Grievous hurt and hurt by dangerous weapon. Sections 324-326, 329, 331, 333 and 335	27	21	22	20	27	16		
(v) Serious criminal force. Sections 353, 354 356, and 357	3	3	2	2	3	3		
(vi) Other serious offences against the person	13	7	7	4	7	6		
(vii) Dacoity, sections 395, 397 and 398 ..	..	...	...	...	...	...		
(viii) Serious mischief, including mischief by killing, poisoning or maiming any animal. Sections 270, 281, 282, 428, 429, 430-433 and 435-40 ...	26	2	12	6	17	4		
(ix) House breaking and serious house trespass, sections 449-452, 454 455 and 457-460	106	11	101	28	66	13		
(x) Wrongful restraint and confinement. Sections 341-344	7	3	4	...	2	1		
(xi) Other serious offences against the person or property	3	3	...	...	3	3		
(xii) Theft, section 379 and 382 ..	180	75	181	98	141	69		
(xiii) Receiving stolen property. Sections 411 and 414	16	15	38	30	29	26		
(xiv) Lurking and Criminal house trespass. Sections 453, 456, 447 and 448 ..	36	17	22	14	18	14		
(xv) Other minor offences against property ..	16	7	7	5	8	5		
NORTH LAKHIMPUR SUBDIVISION.								
CRIMINAL JUSTICE.								
Number of cases.								
(i) Rioting or unlawful assembly, sections 143-153, 157, 158 and 159	2	1	8	5	1	1		
(ii) Other offences against the State, public tranquility &c.	4	1	4	3	2	2		
(iii) Murder, attempt at murder and culpable homicide sections 302-304, 307, 308 and 396	4	...	2	1	3	2		
(iv) Grievous hurt and hurt by dangerous weapon. Sections 324-326, 329, 331, 333 and 335	7	4	6	3	3	1		
(v) Serious Criminal force, sections 353, 354, 356 and 357	3	2	...	...	5	2		
(vi) Other serious offences against the person	4	2	4	2	2	2		
(vii) Dacoity. Sections 395, 397 and 398 ..	...	...	...	...	...	...		
(viii) Serious mischief, including mischief by killing, poisoning or maiming any animal. Sections 270, 281, 282, 428, 429, 430-433 and 435-40	15	3	11	1	13	1		

XI.

and Civil Justice by subdivisions.

1906.		1907.		1908.		1909.		1910.		1911.		1912.	
True.	Detected.	True.	Detected.	True.	Detected	True.	Detected.	True.	Detected.	True.	Detected.	True.	Detected.

TABLE

Statistics of Criminal

HEADS OF CRIME.	1902.		1903.		1904.		1905.	
	True.	Detected.	True.	Detected.	True.	Detected.	True.	Detected.
NORTH LAKHIMPUR SUB-DIVISION—(*concld.*)								
(ix) House breaking and serious house trespass. Sections. 449-452, 454, 455, and 457-460	28	4	15	4	13	...		
(x) Wrongful restraint and confinement. Section 341-344	4	..	5	2	4	2		
(xi) Other serious offences against the person or property	...	...	...	..		..		
(xii) Theft. Sections 379 and 382 ..	54	29	42	12	30	14		
(xiii) Receiving stolen property. Sections 411 and 414	6	5	9	9	8	7		
(xiv) Lurking and criminal house trespass. Sections 453, 456, 447 and 448	7	3	4	3	3	2		
(xv) Other minor offences against property	2	1		...	1	..		
DISTRICT TOTAL.								
CRIMINAL JUSTICE.								
Number of cases.								
(i) Rioting or unlawful assembly. Sections 143-153, 157, 158 and 159	12	11	15	12	6	5		
(ii) Other offences against the State, Public tranquility, &c.	13	6	16	14	8	6		
(iii) Murder, attempt at murder and culpable homicide. Sections 302-304, 307, 398 and 396	13	2	14	8	10	7		
(iv) Grievous hurt and hurt by dangerous weapon. Sections 324-326, 329, 331, 333 and 335	34	25	28	23	30	17		
(v) Serious criminal force, sections 353, 354, 356 and 357	6	5	2	2	8	5		
(vi) Other serious offences against the person	17	9	11	6	9	8		
(vii) Dacoity. Sections 395,397 & 398 ...	..	..	...	...	..	...		
(viii) Serious mischief, including mischief by killing poisoning or maiming any animal sections 270, 281, 282, 428, 429, 430-433, and 435-40	41	5	23	7	30	5		
(ix) House breaking and serious house trespass. Sections 449-452, 454, 455 and 457-460	134	15	116	32	79	13		
(x) Wrongful restraint and confinement. Section 341-344	11	3	9	2	6	3		
(xi) Other serious offences against the person or property	3	3	..	...	3	3		
(xii) Theft Sections 379 and 382 ...	234	104	223	110	171	83		
(xiii) Receving stolen property. Sections 411 and 414 ...	22	20	47	39	37	33		
(xiv) Lurking and criminal house trespass. Sections 453,456, 447 and 448 ...	43	20	26	17	21	16		
(xv) Other minor offences against property ..	18	8	7	5	9	5		
CIVIL JUSTICE.								
Number of suits for money and moveables ..	...	1,375		1,379				
Title and other suits	...	76		36				
Rent suits	...	29		18				

XI.- *contd.*

and Civil Justice by subdivisions.

1906.		1907.		1908.		1909.		1910.		1911.		1912.	
True.	Detected.	True.	Detected.	True.	Detected.	True.	Detected.	True.	Detected.	True.	Detected.	True.	Detected.

TABLE

Fluctuations in
Proportion of fluctuating

PARTICULARS.		1900-01.	1901-02.	1902 03.	1903-04.
		Acres.	Acres.	Acres.	Acres.
Dibrugarh Subdivision—					
Settled area	...	317,550	323,084	328,337	336,367
Area excluded from settlement	...	5,508	5,857	6,917	6,841
Area included in settlement	...	10,599	12,762	11795	14,009
Revenue demand ...	Rs.	4,01,266	4,13,660	4,22,101	4,38,303
North Lakhimpur Subdivision—					
Settled area		79,359	82,396	85,891	88,042
Area excluded from settlement	...	5,997	6,191	7,144	10,267
Area included in settlement	.	8,923	11,048	10,090	11,272
Revenue demand ...	Rs.	1,43,772	1,49,551	1,56,950	1,61,623
Total District—					
Settled area	..	396,909	405,480	414,228	424,409
Area excluded from settlement	...	11,505	12,048	14,061	17,108
Area included in settlement	...	19,522	23,810	21,885	25,281
Revenue demand ...	Rs.	5,45,038	5,63,211	5,79,051	5,99,926

TABLE

Miscellaneous

PARTICULARS.		1900-01.	1901-02.	1902-03.	1903-04.
Dibrugarh subdivision.		Rs.	Rs	Rs.	Rs.
Elephants	...	2,350	9,792	11 035	2,160
Fisheries	...	5,415	6,244	5,544	7,588
Poll-tax	..	5,919	6,100	6,723	7,106
Coal	...	31,383	33,721	28,881	36,313
Mineral Oil	...	5,500	5,500	6,032	3,750
Total Revenue	.	56,623	63,201	62,337	60,120
North Lakhimpur subdivision.					
Elephants	..	7,033	537	...	5,200
Fisheries	..	1,033	1,732	2,401	1,932
Poll-tax	..	622	590	614	626
Total Revenue	..	8,829	3,072	3,271	7,891
TOTAL DISTRICT.					
Elephants	..	9,383	10,329	11,035	7,360
Fisheries	..	6,448	7,976	7,945	9,520
Poll-tax	..	6 541	6,690	7,337	7,732
Coal	..	31,383	33,721	28,881	36,313
Mineral Oil	..	5,500	5,500	6,032	3,750
Other heads	..	6,197	2,057	4,378	3,336
Total Revenue	..	65,452	66,273	65,608	68,011

XII.

settled area. } *Dibrugarh subdivision* 1·4.
area to settled area in 1903-04 } *North Lakhimpur Subdivision* 38·6.

1904-05.	1905-06.	1906-07.	1907-08.	1908-09	1909-10.	1910-11	1911-12.
Acres.	Acres.	Acres	Acres.	Acres	Acres.	Acres.	Acres.
					...		
					...		
						...	
					...	...	...

XIII.

Land Revenue.

1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10	1910-11	1911-12.
Rs.	Rs.	Rs.	Rs.	Rs.	... Rs.	... Rs.	Rs.
					...	...	

TABLE

Finance

PRINCIPAL HEADS.	1890-91.	1900-01.	1901-02.	1902-03.
	Rs.	Rs.	Rs.	Rs.
Land revenue	3,14,426	5,95,306	6,29,148	6,39,359
Provincial rates	21,715	44,216	46,621	47,450
Judicial stamps	20,508	37,128	37,076	37,690
Non judicial stamps	11,762	25,684	24,925	24,676
Opium	4,54,585	5,34,877	5,11,069	5,11,643
Country spirits	53,708	1,65,906	2,01,772	2,10,793
Ganja	19,762	53,664	56,121	46,017
Other heads of excise	19,754	4,844	5,058	3,914
Assessed taxes	25,095	52,236	52,406	59,582
No. of Assessees per 1000 of population ...	2	4	4	4
Forests	23,322	80,961	66,667	84,046
Registration	497	1,195	1,234	1,239
TOTAL ...	9,65,134	15,96,017	16,32,097	16,66,409

XIV.

Receipts.

1903-04.	1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1910-11.	1911-12.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
6,59,182							
46,905							
37,249							
29,514							
5,29,405							
1,98,955							
53,711							
3,614							
49,734							
2							
1,24,267							
1,400							
17,33,936							

TABLE

Land

PARTICULARS.	1900-01.	1901-02.	1902-03.	1903-04.
DIBRUGARH SUBDIVISION—	Acres.	Acres.	Acres.	Acres.
Total land settled for cultivation of ordinary crops	117,967	122 038	124,743	130,790
Held on ordinary tenures	115,589	120,641	123,354	129,436
Held revenue-free (Lakhiraj) ...	1,369	388	380	386
Held at half rates (Nisfikhiraj) ...	1,009	1,009	1,009	968
Total land settled for cultivation of special staples	190,886	191,352	193 882	195,970
Area of fee simple and commuted grants	107,280	107,280	107 280	107,280
Area settled on 30 years lease ...	58,114	58,326	60,226	61,826
Area held under ordinary rules or re-settled on expiry of 30 years lease ...	25,492	25,746	26,376	26,864
Total land settled under other tenures ...	8.697	9,694	9,712	9,607
Total settled area of Subdivision ...	317,550	323,084	328,337	336,367
Total unsettled area of Subdivision ...	1,623,570	1,618,036	1,612,783	1,604 753
NORTH LAKHIMPUR SUBDIVISION—				
Total lands settled for cultivation of ordinary crops	54,255	57,226	60,717	62,751
Held on ordinary tenures	53,372	56,343	59,834	61,868
Held revenue free (Lakhiraj) ...	610	610	610	610
Held at half rates (Nisfikhiraj) ...	273	273	273	273
Total land settled for cultivation of special staples	22,448	22,491	22,491	22,488
Area of fee simple and commuted grants	10,057	10,057	10,057	10,057
Area settled on 30 years lease ...	10,485	10,525	10,525	10,525
Area held under ordinary rules or re-settled on expiry of 30 years lease ...	1,906	1,909	1,909	1,906
Total land settled under other tenures ...	2,656	2,679	2,683	2,802
Total settled area of Subdivision ...	79,359	82,396	85,891	88,041
Total unsettled area of Subdivision ...	672,001	668,964	665,469	663,319
TOTAL DISTRICT—				
Total land settled for cultivation of ordinary crops	172,222	179,264	185,460	193,541
Held on ordinary tenures	168,961	176,984	183,188	191,304
Held revenue free (Lakhiraj) ...	1.979	998	990	996
Held at half rates (Nisfikhiraj) ...	1,282	1,282	1,282	1,241
Total land settled for cultivation of special staples	213,334	213,843	216,373	218,458
Area of fee simple and commuted grants	117,337	117,337	117,337	117,337
Area settled on 30 years lease ...	68,599	68,851	70,751	72,351
Area held under ordinary rules or re-settled on expiry of 30 years lease ...	27,398	27,655	28,285	28,770
Total land settled under other tenures ...	11,353	12,373	12,395	12,409
Total settled area of the district ...	396 909	405,480	414,228	424,408
Total unsettled area of the district ...	2,295,571	2,287,000	2,278,252	2,268,072

XV.

Tenures.

1904-05.	1905-06.	1906-07.	1907-08.	1908 09.	1909-10.	1910-11.	1911-12.
Acres	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.

TABLE XVa.

Settled and unsettled area of each mauza or tahsil in 1902-03.

NAME OF MAUZA OR TAHSIL.	Total area in square miles.	Total unsettled area in square miles.	REMARKS.
DIBRUGARH SUBDIVISION.			
Dibrugarh tahsil	190	27	Includes 20 square miles of reserved forests.
Bagdang Mauza	63	28	
Buridihing "	153	152	Includes 152 square miles of reserved forests.
Chabua "	14	1	
Dhemaji "	154	147	
Gharbandi "	58	31	
Jaipur "	357	207	Includes 106 square miles of reserved forests.
Khowang "	156	128	
Madarkhat "	39	21	
Makum "	43	16	Includes 6 square miles of reserved forests.
Phakial "	22	14	Includes 8 square miles of reserved forests.
Palonga "	6	1	
Rangagora "	54	29	
Rohmoria "	25	7	
Sadiya "	78	74	
Saikhoa "	191	168	
Sisi "	187	183	
Tengakhat "	89	64	
Tipling "	136	132	Includes 18 square miles of reserved forests.
Ujan Nakhankhola	202	128	
NORTH LAKHIMPUR SUBDIVISION.			
Bardalani Mauza ...	116	106	
Dhakuakhana "	185	174	
Gohaingaon "	134	119	
Kadam "	155	141	Includes 17 square miles of reserved forests.
Lakhimpur "	64	54	
Laluk & Bangfang "	154	137	
Naobaicha "	107	92	Includes 13 square miles of reserved forests.
Narayanpur "	109	94	
Nakari and Kamalabari mauzas ...	49	30	
Telahi mauza	94	82	

TABLE
Excise

PRINCIPAL HEADS.		1900-01.	1901-02.	1902-03.	1903-04.
DIBRUGARH SUBDIVISION—					
Number of opium shops ...	..	95	92	94	97
Amount paid for licenses ...	Rs.	87,506	88,019	87,215	83,938
		md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch.
Opium issued	.	294 28 0	270 15 0	269 36 0	282 32 0
Duty on opium sold ...	Rs.	3,35,959	3,08,058	3,07,686	3,22,394
Number of ganja shops ...	...	18	18	18	18
Amount paid for licenses ...	Rs.	31,847	35,456	33,313	33,002
		md. srs. ch	md. srs. ch.	md. srs. ch	md. srs. ch
Amount of ganja issued ...	...	56 36 12	54 16 8	32 12 0	50 27 8
Duty on ganja sold ...	Rs.	20,442	19,554	11,628	19,356
Number of country spirit shops	...	20	21	21	20
Amount paid for licenses ...	Rs.	1,58,440	1 94,752	2,03,569	1,90,288
Number of distilleries ...	...	...	...	...	...
Amount of liquor issued ...	...	...	...	...	...
Still head duty	Rs	...	...	...	...
Number of retail shops ...	...	...	...	...	...
Amount paid for licenses ...	Rs.	...	...	...	...
Other heads of excise revenue	"	4,817	5,028	3,770	3,467
NORTH LAKHIMPUR SUBDIVISION—					
Number of opium shops ...	...	46	46	46	46
Amount paid for licenses ...	Rs	18,075	19,002	17,646	19,619
		md. srs. ch.	md. srs ch.	md. srs. ch.	md. srs. ch.
Opium issued	...	81 35 0	84 2 1	86 37 0	90 30 0
Duty on opium sold ...	Rs.	93,337	95,990	99,096	1,03,454
Number of ganja shops ...	...	2	2	2	2
Amount paid for licenses ...	Rs.	862	844	734	840
		md. srs. ch	md. srs. ch.	md. srs. ch.	md. srs. ch.
Amount of ganja issued ...	...	1 17 0	0 31 0	1 0 0	1 21 0
Duty on ganja sold	Rs.	513	267	342	513
Number of country spirit shops	...	5	5	5	5
Amount paid for licenses ...	Rs.	7,466	7,020	7,224	8,667
Number of distilleries ...	...	...	...	...	...
Amount of liquor issued ...	...	...	...	...	...
Still head duty	Rs.	...	...	...	...
Number of retail shops ...		...	...	...	...
Amount paid for licenses ...	Rs.	...	...	...	...
Other heads of excise revenue ...	"	27	30	144	147
TOTAL DISTRICT—					
Number of opium shops ...	...	141	138	140	143
Amount paid for licenses ...	Rs.	1,05,581	1,07,021	1,04,861	1,03,557
		md. srs. ch.	md. srs ch.	md. srs. ch.	md. srs. ch
Opium issued	.	376 23 0	354 17 1	356 33 0	373 22 0
Duty on opium sold ...	Rs.	4,29 296	4,04,048	4,06,782	4,25,848
Number of ganja shops ...	...	20	20	20	20
Amount paid for licenses ...	Rs.	32,709	36,300	34,047	33,842
		md. srs. ch.	md. srs. ch.	md. srs. ch.	md srs. ch.
Amount of ganja issued ...	..	58 13 12	55 7 8	33 12 0	52 8 8
Duty on ganja sold ...	Rs.	20,955	19,821	11,970	19,869
Number of country spirit shops	...	25	26	26	25
Amount paid for licenses ...	Rs.	1,65,906	2,01,772	2,10,793	1,98,955
Number of distilleries ...	...	...	...	...	...
Amount of liquor issued ...	...	...	...	...	...
Still head duty	Rs.	...	...	...	...
Number of retail shops ...	"	...	...	...	...
Amount paid for licenses ...	"	...	...	...	...
Other heads of excise revenue	"	4,844	5,058	3,914	3,614

XVI.
Statistics.

1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.
md. srs. ch.	md. srs. ch	md. srs. ch	md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch.
md. srs. ch	md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch	md. srs. ch.	md. srs. ch.	md. srs. ch.
md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch	md. srs. ch	md. srs. ch.	md. srs. ch.
md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch	md. srs. ch.	md. srs. ch.	md. srs. ch.
md. srs. ch.	md. srs. ch	md. srs. ch	md. srs. ch.	md. srs. ch	md. srs. ch.	md. srs. ch.	md. srs. ch.
md. srs. ch.	md. srs. ch.	md. srs. ch.	md. srs. ch	md. srs. ch	md. srs. ch.	md. srs. ch.	md. srs. ch.

TABLE XVII.

Income and expenditure of Local Boards.

Dibrugarh Local Board.

	Income.			Expenditure.	
	1890-91.	1900-01.		1890-91.	1900-01.
	Rs.	Rs.		Rs.	Rs.
Provincial rates ...	16,149	33,948	Post Office	1,064	2,607
Police	3,832	4,489	Administration ...	113	113
Tolls on Ferries ...	1,192	3,810	Education	4,136	12,053
Contributions	26,946	28,000	Medical	1,699	7,459
Debt	..	393	Civil Works	26,408	65,830
Miscellaneous	583	1,795	Debt	...	505
			Miscellaneous	2,488	1,641
Total ...	48,702	72,435	Total ...	35,908	90,208

North Lakhimpur Local Board.

	Income.			Expenditure.	
	1890-91.	1900-01.		1890-91.	1900-01.
	Rs.	Rs.		Rs.	Rs.
Provincial rates ...	5,565	10,296	Post Office	1,170	2,075
Police	556	1,108	Administration ...	74	74
Tolls on Ferries ..	1,251	1,884	Education	3,432	4,368
Contributions	22,419	25,920	Medical	377	1,428
Debt	...	1,425	Civil Works	15,157	35,512
			Debt	...	1,009
			Miscellaneous	1,862	715
Total ...	29,791	40,633	Total ...	22,072	45,181

TABLE XVIII.

Income and expenditure of municipality.

Dibrugarh Municipality.

Sources of Income.	Income.		Heads of Expenditure.	Expenditure.	
	1890-91.	1900 01.		1890 91	1900-01.
	Rs.	Rs.		Rs.	Rs.
Opening balance ..	2,128	128	Administration ...	1,559	2,448
Tax on houses and lands ...	3,936	6,099	Conservancy ...	3,136	11,906
Pounds	2,278	1,064	Public works ...	7,888	10,265
Fees from markets ...	2,145	3,791	Public instruction ...	761	991
Grants from Government and Local Funds ...	5,000	8,000	Drainage ...	1,079	2,074
Rent of houses, &c. ...	4,676	6,299	Other heads ...	8,812	6,180
Conservancy ...	491	5,166	Closing balance ...	1,184	726
Other sources	3,765	4,043			
Total ..	24,419	34,590	Total ...	24,419	34,590

TABLE XIX.

Strength of Police Force.

Particulars.	1881.	1891.	1901.
CIVIL POLICE. **Supervising Staff.**			
District and Assistant Superintendents ...	2	1	1
Inspectors	2	2	2
Subordinate Staff.			
Sub-Inspectors	5	5	8
Head Constables	12	13	10
Constables	99	107	154
Union and Municipal Police	7	.. ...	... ..
Military Police.			
Officers	......	79	91
Men	... ...	645	756
Total Expenditure Rs. ..	36,253	1,60,452	2,68,052

Note—Actual strength for 1881 and for military police in 1891 and sanctioned strength for other years. As the full sanctioned number of Sub-Inspectors was not entertained in 1901, the actual number of Sub-Inspectors and Head Constables is shown for that year.

TABLE XX.

Police Stations and Outposts.

	Name of Police Station or Outpost.	Sanctioned Strength. Sub-Inspectors.	Head Constables	Constables.	Total.
Dibrugarh.	Dhemaji out post	...	1	4	5
	Dibrugarh Police station	3	1	16	20
	Dumduma " "	2	...	10	12
	Jaipur out post	1	...	5	6
	Margherita " "	1	...	5	6
	Moran " "	1		5	6
	Sadiya " "	..	1	3	4
	Tinsukia Police station	2	..	10	12
North Lakhimpur.	Dhakuakhana out post ...	1	...	7	8
	North Lakhimpur Police station ..	2	...	10	12

TABLE XXI.

Military Police Outposts.

Name.	Distance from Head-Quarters.	Strength. Cold weather. Officers.	Cold weather. Men.	Rains. Officers	Rains. Men.
Sadiya	65 miles ...	12	54	12	54
Dikrang	70 " ...	2	12	...	...
Dibang	70 " ...	2	12	...	
Sesseri	81 " ...	2	16	...	...
Kerimpani	79 " ...	3	22	...	...
Bomjur	90 " ...	4	26	...	...
Difu	71 " ...	2	16	...	...
Sunpura	83 " ...	2	16	...	...
Dijmur	20 " ...	2	16	—	...
Sisi	22 " ...	2	12	...	...
North Lakhimpur ...	113 " ...	7	27	...	...
Jaipur	36 " ...	2	9	7	27
Lungchang	70 " ...	3	18	2	9
Lallimukh	...	2	18	...	...
Laimakury	......	2	18	...	...

Table XXII.

JAIL STATISTICS.

Dibrugarh Jail.

		1881.	1891.	1901.
Average daily population ...	Male ...	45	58	100
	Female ...	4	2	3
Rate of Jail mortality per 1,000		102	66	......
Expenditure on Jail maintenance Rs.		6,048	5,372	12,920
Cost of fooding and clothing per prisoner Rs. ...		45	52	85
Profits on Jail manufacture Rs.		2,299	4,066	1,093
Earnings per prisoner (*a*) Rs.		54	74	12

North Lakhimpur Subsidiary Jail.

		1881.	1891.	1901.
Average daily population ..	Male ...	9	11	14
	Female ...	......	......	......
Rate of Jail mortality per 1,000		......	......	......
Expenditure on Jail maintenance Rs.		1,101	1,431	889
Cost of fooding and clothing per prisoner Rs. ...		28	55	37
Profits on jail manufacture Rs.		276	432	314
Earnings per prisoner(*a*) Rs.		34	43	29

(*a*) Calculated on the average number sentenced to labour.

TABLE

Edu-

	1900-01	1901-02.	1902-03.	1903-04.
SECONDARY SCHOOLS.				
High Schools—				
Number	1	1	1	1
" of boys reading in High School Classes	65	64	69	72
" of boys reading in Middle School Classes	111	137	122	123
" of boys reading in Primary Classes	252	231	215	130
Middle English Schools—				
Number	7	8	7	4
" of boys reading in Middle School Classes	62	80	81	56
" of boys reading in Primary Classes	460	544	560	380
Middle Vernacular Schools—				
Number	3	3	3	3
" of boys reading in Middle School Classes	57	61	69	39
" of boys reading in Primary Classes	168	162	158	140
PRIMARY SCHOOLS.				
Upper Primary Schools—				
Number	3	3	3	1
" of boys reading in Upper Primary Classes	18	22	27	4
" of boys reading in Lower Primary Classes	112	103	82	53
Lower Primary Schools—				
Number	189	161	172	160
" of boys reading in three Upper Classes	(a)	(a)	1,480	1,277
" of boys reading in Lower Classes	3,870	3,484	2,509	2,687
FEMALE EDUCATION.				
Number of Girls' Schools	12	9	11	6
" of Girls reading (whether in Girls' or Boys' Schools) in :—				
High Schools	...	...	...	...
Middle English Schools	...	6	...	...
Middle Vernacular Schools	68	83	76	37
Upper Primary Schools	...	...	...	27
Lower Primary Schools	184	140	139	94

(a) Separate figures

XXIII.

cation.

1904-05.	1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.

not available

TABLE XXIV.

Educational Finance in 1900-01.

PARTICULARS.	No of institutions.	EXPENDITURE ON INSTITUTIONS MAINTAINED OR AIDED BY PUBLIC FUNDS IN 1900-01 FROM.					EXPENDITURE PER SCHOLAR.
		Provincial Revenues.	Local and Municipal Fund.	Fees.	Other sources.	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs. As. P.
Training and Special Schools	4	8,261	825	2,255	1,708	13,049	173 15 9
Secondary Boys' Schools :—							
Upper (High) ...	1	−772	...	7,787	35	7,050	16 11 4
Lower (Middle) ...	10	1,315	2,630	4,288	1,879	10,112	14 6 10
Primary Boys' Schools :—							
Upper	3	234	320	72	164	790	6 12 11
Lower	189	...	11,466	420	72	11,958	3 6 4
Girls' School ...	12	...	1,066	33	115	1,214	6 0 1
Total ...	219	9,038	16,307	14,855	3,973	44,173	8 12 1

TABLE XXV.

Medical.

Particulars.	Dibrugarh Subdivision.			North Lakhimpur Subdivision.			Total District.		
	1881.	1891.	1901.	1881.	1891.	1901.	1881.	1891.	1901.
Number of dispensaries	2	1	4	1	1	2	3	2	6
Daily average number of indoor patients ...	16·02	26·66	56·30	·36	1·66	2·04	16·38	28·32	58·34
" " " outdoor " ...	23·69	25·88	156·10	13·37	13·62	59·82	37·06	39·50	215·92
Cases treated	2,389	7,240	36,483	601	3,594	15,628	2,990	10,834	52,111 (*a*)
Operations performed	79	232	677	27	52	188	106	284	865
Total income ... ... Rs.	3,492	8,785	21,697	642	1,327	2,872	4,134	10,112	24,569
Income from Government ... "	844	1,642	7,889	102	148	515	946	1,790	8,404
Income from local and municipal funds "	1,213	1,800	8,650	...	300	1,209	1,213	2,100	9,859
Subscriptions ... ... "	1,267	937	1,838	417	154	184	1,684	1,091	2,022
Total expenditure ... ... "	3,290	8,720	21,664	519	1,310	2,870	3,839	10,030	24,534
Expenditure on establishment ... "	1,694	2,135	3,862	194	312	824	1,888	2,447	4,686
Ratio per mile of persons successfully vaccinated	...	not avail	able	not avail	able	...	9·23	51·40	40·04
Cost per case ... ... Rs.	...	not avail	able	not avail	able	...	...	0 1 11	0 1 11

(*a*) Excludes 85 persons treated in the private dispensary at Phukanbari.

TABLE

Dispen

NAME OF DISPENSARY.	1900.		1901.		1902.		1903.		1904.		1905.	
	Total cost.	Cases treated.	Total cost.	Cases treated.	Totel cost.	Cases treated.	Total cost.	Cases treated.	Total cost.	Cases treated.	Total cost.	Cases treated.
	Rs.		Rs.		Rs.		Rs.		Rs.		Rs.	
Dibrugarh	22,316	25,985	17,274	25,160	10,772	26,396	12,176	22,839	9,766	26,739		
Tengakhat	2.353	4,866	2,025	5,476	1,193	6,662	978	7,820	1,217	7,818		
Tinsukia	...	...	1,841	3,325	1.222	5,901	994	5,765	1,315	7,049		
Sadiya	...	...	525	2,522	606	2,665	580	1,324	640	3,952		
Dibrumukh	...	...	...	...	2,520	4,298	1,153	6,871	1,217	6,788		
North Lakhimpur ...	1,522	8,750	1,375	8,889	962	8:939	1,104	9,591	1,274	9,510		
Dhakuakhana ...	1,296	3,676	1,496	6,739	954	7,669	1,011	8,005	974	10,310		

XXVI.

saries.

1906.		1907.		1908.		1909.		1910.		1911.		1912.	
Total cost	Cases treated.	Total cost.	Cases treated.	Total cost.	Cases treated.	Total cost.	Cases treated.	Total cost.	Cases treated.	Total cost.	Cases treated.	Total cost.	Cases treated.
Rs.		Rs.		Rs.		Rs		Rs		Rs.		Rs.	

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